This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

LANE MEDICAL LIBRARY STANFORD
N33 .D96 1865 STOR
A treatise on gonorrha and syphilis / b
24503430291

LANE
MEDICAL LIBRARY
LEVI COOPER LANE FUND

LANE
MEDICAL LIBRARY
SEAL OF THE LELAND STANFORD JUNIOR UNIVERSITY
SEMPER VIRENS
1885
LEVI COOPER LANE FUND

TESTIMONIALS.

"We were a member of the Boylston Prize Committee, which offered the question which Dr. Durkee has so ably answered. We heartily commend this volume to the profession. We want such works. We want our own men to write them. We have relied too much and too long on foreign authors."

Prof. CHANNING, of Boston.

From Professor R. D. MUSSEY, of Cincinnati, Ohio.

It is gratifying to see, at length, a book on this subject strictly American — and still more to see it so well done. The work ought to be in the hands of all young practitioners, and it may justly claim a conspicuous place in the libraries of the ripened and skilful members of the medical profession.

From Dr. THOMAS C. BRINSMADE, late President of the Medical Society of the State of New York.

It is an important and highly useful work. The style is admirable; and the practical character of the volume is clearly shown on every page. I doubt not it will be well received by the American Medical Profession generally. The plates add greatly to the value of the text.

From DIXI CROSBY, M. D., Professor of Surgery and Obstetrics in Dartmouth College.

I have examined Dr. Durkee's new work on Gonorrhœa and Syphilis, and a sense of professional gratitude impels me to record my unqualified approbation of it.

From Dr. VALENTINE MOTT, Professor of Surgery, &c., New York City.

NEW YORK, August 3, 1859.

My Dear Sir: Some little time before you did me the honor to send me a copy of your work, I had procured it, and was therefore more or less acquainted with its merits. I thank you sincerely for the copy you have sent me, as I shall take more interest now in making myself familiar with your views of the interesting and complicated subject of the Venereal Disease.

I am gratified to say, that in my opinion you have shown yourself familiar with the literature of the subject, and, what is vastly more important for the profession of our country, to possess an intimate acquaintance with its practical details. Your beautiful volume therefore will, and ought to, become a standard work, alike an honor to the country and to yourself.

Yours truly, V. MOTT.

DR. DURKEE.

From Dr. Wm. W. Morland, Physician to the Boston City Hospital.

Dr. Durkee's work on Venereal Diseases has the great merit of combining a vast amount of the freshest information upon the topics of which it treats. It is written in an eminently agreeable style. As a judicious and reliable practical guide, it is superior to any other work of the kind.

New York, Aug. 5, 1859.

Dr. Durkee, — Dear Sir: Your recently published volume on Venereal Affections has been in my possession several weeks; in the meanwhile I have given it an attentive perusal, I may say quite a study. It is but limited praise to say the work is honorable to the literature and science of the age, and will place its author high in the rank of that select corps who have augmented useful knowledge and advanced medical science.

I am not wholly unfamiliar with the writings of the most renowned who have contributed to the advancement of sound principles on that special and important subject to which your most interesting volume is devoted. Professionally and in practice I have had much to do with those diseases of pollution, and have studied the infirmities of the sexual system with some devotion, in the several hospitals abroad appropriated to their special treatment. Were it not for these circumstances, I should hardly feel justified in giving an opinion touching the merits of a work so extensive, so elaborate in exposition, so minute in nosological precision, and so practical in its suggestions. Let me, after a copious reading of many works on the subject to which yours relates, give the assurances of my sincerest conviction that you have produced a book possessing claims to consideration superior to any other that I have ever met with on the subject. I think you have proved yourself an unbiassed and clear observer of the varied phenomena of a class of affections hitherto enumerated among the vexed questions of scientific medicine. You have noticed and developed with philosophical precision. You have fortified original observations by judicious and sound authority. You seem to me to have had but one great principle of action in your laborious investigations — the desire to elucidate truth and present a faithful record of facts as they are offered to the clinical observer. Your work has settled, in my opinion, several doubtful points long in controversy. You have attacked preposterous innovations, however high the authority. You have demonstrated to full conviction some of the popular delusions of the great John Hunter, and the too partial deductions of Ricord. John Pearson, for more than twenty years a successor in renown next to John Hunter, has lost his prestige in your voluminous facts on corrosive sublimate. But I will weary you no longer in detail of this sort. I will briefly add that your work betrays on every page your close observation and your philosophical powers. The nation is enhanced in the intellectual world by your analytical treatment of the most embarrassing subject in the entire field of practical science; and you may rest assured that the enlightened of both hemispheres will appreciate and honor your labors.

With sincere esteem, dear sir, your obligated friend,

JOHN W. FRANCIS, 1 Bond street, New York.

This new work on Gonorrhœa and Syphilis, by Dr. Durkee, is an excellent production. — *Ohio Medical Gazette.*

I have examined Dr. Durkee's work on Venereal Affections, and am happy to recommend it to the Medical Profession.

JONATHAN KNIGHT, Professor of Surgery in the Medical Institution of Yale College.

I have carefully perused Dr. Durkee's Treatise on Gonorrhœa and Syphilis, and consider it the best practical work of the kind in the English language.

P. A. JEWETT, Professor, &c.,
Medical Institution of Yale College.

"I am very much obliged for the copy you sent me, and, from the examination I have made of it, I think it of great practical utility. I am sure I shall recommend it as the first American work on this subject, as well as for its own excellence."

Prof. E. R. PEASLEE.

From ALDEN MARCH, M. D., Professor of Surgery, Albany Medical College.

DR. DURKEE, — My Dear Sir: Since I returned to Albany I have devoted part of my leisure hours to the perusal of your recently published work on Gonorrhœa and Syphilis, and to say that I have been instructed and pleased with your labors in the cause of medical and surgical science, as unfolded in this work, would fall far short of the meed of praise to which you are entitled.

So far as I may be allowed to be a judge, I can speak in the highest terms of the design, arrangement, and execution of your excellent treatise. I admire the *direct*, *concise*, and *lucid* manner in which you have presented the respective subjects that are discussed in its pages. The volume contains a vast amount of information in a small compass, and I would especially recommend it as a standard and reliable work.

The simple and philosophical mode of treatment pointed out, and the appropriate prescriptions, enhance its value to the young physician; and to such, and to the students of our College, I shall not hesitate to recommend it, with the fullest confidence that it is worthy of the many encomiums bestowed upon it by some of the most distinguished in the ranks of the profession.

From JOHN HOMANS, M. D., President of the Massachusetts Medical Society, and one of the Consulting Physicians at the Massachusetts General Hospital.

I have examined Dr. Durkee's treatise on Venereal Diseases, and have derived much satisfaction from its perusal. The style of the author is remarkably clear, refined, and pertinent, and he treats the different subjects contained in his book in a most judicious and acceptable manner. His large experience, his accurate powers of observation, and his extensive acquaintance with all that has been written upon Syphilitic Affections, have enabled him to furnish a volume of great excellence. For reliability and usefulness I can truly say that I know not its equal in the English language. In short, the work reflects the highest credit upon the author, and is, in the best sense, an honor to American medical literature.

JOHN HOMANS.

NEW WORK ON GONORRHŒA AND SYPHILIS. — We are gratified to be able to announce that a work upon Gonorrhœa and Syphilis, which has been long in the process of careful elaboration by its author, Dr. SILAS DURKEE, of this city, is now rapidly passing through the press. We have had the opportunity of perusing the manuscript, and have no hesitation in declaring that the volume will be eminently a useful and practical one. — *Boston Medical Journal.*

We especially like the critical and discriminating spirit which characterizes every part of this work, and its freedom from any servile or sycophantic submission to what are called authorities. * * * We have read enough of its pages to predict that it will become a standard authority in this department, regarding it, as we do, superior to any of the works we have seen on the subject, whether foreign or domestic. — *American Medical Gazette.*

We have given this work a careful perusal, and feel confident in the assertion that the medical profession in this country will agree with us in the opinion that the author has successfully carried out his design.

An experience of thirty years in the treatment of skin diseases, as a specialty, enables Dr. Durkee to speak with peculiar authority on the diagnosis and management of secondary and tertiary Syphilis; and on this subject, upon which general practitioners are most often at fault, the work is particularly clear and elaborate.

We confidently recommend it to the profession as the best work, for a manual on these subjects, which has yet been published. — *American Medical Monthly.*

Dr. Durkee's work on Syphilis is the most complete and practical production of the kind in any language. The subject is evidently handled by a master. — *College Journal of Medical Science, Cincinnati.*

We are pleased to receive this first full treatise by an American physician as well acquainted with the whole subject as Dr. Durkee seems to be. We are glad to find in the preface that our author has had such an extended experience in the treatment of Venereal Diseases. The book is eminently practical. We think that it is bound to have a large sale, and deservedly so. — *Cincinnati Lancet and Observer.*

We welcome this volume as being the first comprehensive treatise, as far as we remember, on Gonorrhœa and Syphilis which has issued from the American press.

The paramount design of the author has been to furnish a book that shall be practically useful, and we feel sure that its objects in this respect will be fulfilled.

The chapters on Syphilitic Skin Diseases are made more interesting by several well-executed plates. — *Charleston (S. C.) Medical Journal.*

LINDSAY & BLAKISTON,
Publishers, Philadelphia.

Rupia Prominens Syphilitica.

A

TREATISE

ON

GONORRHŒA AND SYPHILIS.

BY

SILAS DURKEE, M. D.,

CONSULTING SURGEON OF THE BOSTON CITY HOSPITAL; FELLOW OF THE MASSACHUSETTS MEDICAL SOCIETY; MEMBER OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT; HONORARY MEMBER OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK; FELLOW OF THE AMERICAN ACADEMY OF ARTS AND SCIENCES, ETC.

THIRD EDITION, REVISED AND ENLARGED.

WITH

EIGHT COLORED ILLUSTRATIONS.

LANE MEDICAL LIBRARY
3779
SAN FRANCISCO

PHILADELPHIA:
LINDSAY AND BLAKISTON.
1865.

HY

Entered, according to Act of Congress, in the year 1864, by

LINDSAY & BLAKISTON,

In the Clerk's Office of the District Court for the Eastern District of Pennsylvania.

WITHDRAWN

W96
1865

TO

THOMAS C. BRINSMADE, M. D.,

LATE

PRESIDENT OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK,

WHO, BY HIS UNWEARIED, INTELLIGENT, AND SUCCESSFUL LABORS TO ADVANCE THE GREAT INTERESTS OF MEDICAL SCIENCE; BY HIS DIGNIFIED AND COURTEOUS DEMEANOR, AND HIS TRUE MORAL EXCELLENCES OF CHARACTER, HAS RISEN TO A HIGHLY HONORABLE AND EMINENT POSITION IN THE PROFESSION,

This Volume

IS CORDIALLY INSCRIBED AS AN EXPRESSION OF GRATITUDE

FOR VALUABLE INSTRUCTION LONG SINCE RECEIVED, AND AS A TOKEN OF WARM REGARD AND FRIENDSHIP,

BY HIS PUPIL,

THE AUTHOR.

PREFACE TO THE FIRST EDITION.

A FEW years since, the author of the following pages prepared an Essay on "The Constitutional Treatment of Syphilis," which was honored by the award of a premium from the Boylston Prize Committee of Harvard University. That Essay constitutes a large portion of the present volume; and, although it has been modified to a degree that deprives it of its original identity, it is believed that its intrinsic merits have been materially enhanced.*

In the early part of my professional career, I had charge, for several years, of the hospital department of a large Charitable Institution, in which venereal patients, and those affected with blennorrhagic diseases daily presented themselves; and I have now devoted more than thirty years to the therapeutics of syphilis and kindred disorders, as they may properly enough be termed. From time to time I have tested a great variety of remedies, and have pursued, by way of experiment, almost every line of treatment that has been brought to notice with any claims to favorable regard. But I have found no royal plan of accomplishing a speedy or certain removal of the maladies under consideration. They will yield to a judicious interposition of medical and surgical skill; and no man, who posesses such skill, will confine himself to a few medicinal

* By a vote of 1826, the Board do not consider themselves as approving the doctrines contained in any of the dissertations to which premiums may be adjudged; and in case of the publication of a successful dissertation, the author is considered bound to print this vote in connection therewith.

substances that may have acquired notoriety as specifics, while they are endowed with no such qualities.

The paramount design which I have endeavored to keep in view, has been, to furnish a book that shall be practically useful. I have studiously avoided engaging, to any great extent, in the discussion of all doubtful matters. These have come before me with sufficient frequency. Scarcely had I entered upon my labors, before I found myself in the thorny wilderness of debate, where I was unable to maintain entire silence or neutrality.

The occurrence of blennorrhagia in the male, as resulting from leucorrhœa, or from the menstrual fluid, has long been a standing theme of controversy, and is still involved in obscurity. I flatter myself that the manner in which I have disposed of this subject, will receive the approbation of my readers generally. Certain I am, that the views I have advanced are in harmony with those maintained by men who have had the largest experience, and who have long been on the "look-out" for all the facts that are capable of reflecting any light upon this interesting question.

In adducing the cases which are interspersed throughout this volume, it has been my aim to select those that appeared to be important and valuable from the peculiar symptoms appertaining to them, as aiding in the diagnosis of different syphilitic accidents, or illustrating the principles of a rational and successful treatment. The details of a few of these cases occupy an unusual amount of space; but it is hoped that the instruction which they are calculated to convey, will justify the prominence given them, and repay for the time required in their perusal.

It was a remark of John Hunter, in reference to distinguishing venereal from other affections, that a true diagnosis is the first step in the cure. In one sense, this idea may not be strictly logical or correct, that is, so far as relates to the individual lesion; and yet, in a broader signification, the expression is

worthy of all acceptation. A medical man may heal a chancre, or other syphilitic sore, without having any knowledge or suspicion of its real character. But, in this state of ignorance, he will be incompetent to officiate in the premises to the highest advantage. He cures the local symptom or difficulty, but not the patient. The morbific cause remains unchecked, to work further mischief, and, at a future day, to display its effects in the appearance of some new symptoms which might never have occurred had a true diagnosis been formed of the original trouble; for such a timely discrimination would have suggested a constitutional remedial course more appropriate, it is presumed, than that which was instituted. Admonished by the words of the great medical philosopher above referred to, I have embraced every suitable opportunity to dwell, in brief and unambiguous language, upon the subject of the diagnosis of the various specific affections or consequences arising from impure sexual congress. It is hoped that the labor put forth in this direction will be found serviceable to the young and inexperienced physician, in his investigations of a class of obscure and perplexing cases, that occasionally present themselves for his decision and management. I have endeavored to delineate the characteristic features assumed by the various cutaneous affections resulting from the venereal poison, and by which the practised eye may generally distinguish them from non-specific eruptions. So far as it has been deemed advisable to classify them, and to study them in separate divisions, the nomenclature of Professor Wilson has, with little variation, been adopted. This arrangement will aid in observing and comprehending the laws that usually regulate the development of these external manifestations, and will greatly assist, also, in their diagnosis and treatment. The fact that some eruptions have a tendency to destroy the anatomical mechanism of the skin, — that is, to proceed to ulceration, — while others evince no such disposition, has induced that excellent writer, Mr. De Meric, to divide all

syphilitic eruptions into two classes; viz., the ulcerative and the non-ulcerative. By this short method of simplification, we get rid of sundry hard words employed by dermatologists; but it seems to me that such an arrangement will fail to give to the student, or to the medical attendant, a clear and scientific knowledge of the respective forms which the syphilodermata exhibit, and that, in a practical or clinical point of view, it must be attended with no inconsiderable disadvantage. These diseases, at any rate, constitute a most important group of morbid phenomena, and require to be studied most thoroughly by every member of the profession who undertakes their cure. Not a few persons on whom they exist, and who apply for medical assistance, endeavor to deceive. They have interested motives for concealing the truth, and the physician is thrown into embarrassing circumstances. If, as a general rule, the latter can rely with safety on his own ability to give a true interpretation of the eruptions, — that is, if he can identify them without a knowledge of their antecedents, — he has no occasion to hesitate or succumb before the individual under examination. His intelligence and sound judgment will soon be apparent to the other party, who will not only be driven, like the fox, from his subterfuges, but will yield respect and confidence to the man whom he could not deceive.

The chapter devoted to the consideration of secondary syphilis, where no primary accident has preceded, contains, it is believed, a fair presentation of facts, and a truthful expression of the sentiments recognized at the present day by a great majority of the most distinguished members of the profession, who have had the most ample opportunities for acquiring knowledge upon the particular points concerning which they speak. The cases and data upon which their opinions are based, will be found to be something more than mere negations; — nor are they brought forward for the vain purpose of establishing or demolishing any particular pathological theory, exclusive of other and higher considerations. It would

seem that a candid appreciation of what is embodied in this chapter, would lead to the conviction that there is but a very narrow margin, or, rather, no ground at all, for controversy or doubt; and yet there are those who discredit the evidence thus adduced and fortified. If the reader finds himself still roaming in the barren realms of skepticism, let him pause at least, and, in an unbiassed and philosophical spirit, listen to these facts as admonitory voices to his incredulity; and let him glean therefrom a lesson of wisdom and prudence. This will be salutary both to himself and others, even if his mind be not fully emancipated from the influence of long-cherished opinions of an opposite kind; for possibly he may be required, in the course of his professional life, and in virtue of his accredited superior attainments in whatever relates to his calling, to give his testimony, under the sanctity of an oath, on certain points at issue, in the solemn halls of justice, and intimately connected with this subject; and involving, among other things, the great question of the communicability of secondary syphilis.

No one can boast that he has witnessed and treated all the accidents entailed upon the human frame, by the promiscuous intercourse of the sexes. Whatever position he may occupy, it is scarcely within the range of possibility that his individual investigations, experience, and opinions, can be sufficiently comprehensive to embrace everything. The recorded observations and labors of others should be consulted. Accordingly, in gathering materials from which to construct the present treatise, I have devoted no little time to the perusal of various works on venereal and other specific affections engendered by the abuse of the reproductive organs; and in the statements and views which I have offered, I have, in very many instances, made other writers participate in the responsibility. Numerous books, essays, lectures, and monographs have been published, and still have a name to live. Some of them are little else than an ingenious and gossamer fabric of conjectures,

not unfrequently dressed in a most fascinating style, and displaying the workings of a lively imagination. Some of them are remarkable for sound erudition; some are enlivened with beautiful rhetorical strokes, and even glitter with the most brilliant corruscations of eloquence that can be found in any department of literature; and some are replete with much practical good sense. On many topics appertaining to the subject of syphilis, a wide discrepancy of opinion characterizes the productions of the most gifted authors, even up to the present moment, and not a few grave problems still remain to be solved. Amid the conflict of sentiment which thus prevails, the student in pursuit of reliable information scarcely knows how to adjust his mind, or how to sever the true from the false — the wheat from the tares. On some of these points I have ventured to offer a helping hand, and to interpose a word of reconciliation, especially in the field of therapeutics.

For the most important discoveries that have been brought to light since the days of Hunter, in regard to the pathology of venereal disorders, — for various and most valuable suggestions and principles proposed for our guidance in their diagnosis, and for most useful rules and improvements in the remedial administrations which they require, — the writings and other services of Ricord are entitled to preëminent consideration. But Ricord is not infallible; and, while rendering this willing tribute to his masterly genius, I feel compelled to add a slight qualification, and to withhold my assent from a few doctrinal views advocated by this distinguished syphilographer.

PREFACE TO THE SECOND EDITION.

THE favorable reception accorded to the first edition of this work, by the medical profession, is a source of gratification to the author, and affords occasion for the issue of the present revised and enlarged edition. This would have appeared at an earlier day, had not circumstances, growing out of the existing troubles of the country, prevented.

In my endeavors more perfectly to present a rational course of treatment of the various phenomena of venereal affections, and to acquaint my readers with the latest suggestions of those whose enlightened experience and position entitle them to be heard, I have diligently consulted the most substantial medical literature up to the present day, and have incorporated into these pages whatever has been deemed essential to a thorough and practical comprehension of the general subject, and conducive to a knowledge of the most modern and successful methods of conducting individual cases as they may, from time to time, occur.

S. D.

BOSTON, *June*, 1864.

CHAPTER VII.

Eczema Præputialis. — Appears in Connection with Chronic Blennorrhagia. — Fraternizes with Impetigo. — Mistaken for a Venereal Disease. — Treatment, ... 103

CHAPTER VIII.

In Irritability of the Bladder, the System is rarely disturbed. — In Inflammation of the Bladder, it is. — Difference of Symptoms in Irritable Bladder and Calculus. — Treatment of Irritable Bladder, ... 108

CHAPTER IX.

Excoriations. — Most frequent Locality. — Generally but one excoriated Patch. — Complaint apt to return, ... 113

CHAPTER X.

Urethral Pains. — The Testicles sometimes participate. — Also the Bladder. — Depressing Influence on the Mind. — Treatment, ... 118

CHAPTER XI.

Spermatorrhœa. — Causes. — Pathology. — Treatment. — Mental Discipline. — Lupulin. — Note from Dr. James Jackson. — Porte Caustique. — Anodyne Injections. — Bromide of Potassium. — Marriage. — Castration, ... 121

CHAPTER XII.

Gonorrhœal Ophthalmia. — Disease not mentioned by John Hunter. — Inoculation the most frequent Cause. — Opinions of Cooper and Others. — Letter from Dr. Henry W. Williams, with Cases. — Diagnosis. — Treatment, ... 140

CHAPTER XIII.

Ophthalmia Neonatorum. — Most frequent Cause of the Disease. — Symptoms. — Treatment, ... 152

CHAPTER XIV.

Gonorrhœal Rheumatism. — Specific Cause unknown. — Structures involved. — Sir A. Cooper's first Case. — The Disease described by Mr. Brodie. — Dr. Johnson's Opinion. — Diagnosis. — Treatment, ... 156

CHAPTER XV.

Vegetations. — Are not venereal. — Are known by sundry Names. — Their Situation. — Their anatomical Structure. — Treatment. — Papillomata, ... 162

CHAPTER XVI.

Blennorrhagia in the Female. — The Speculum. — Diagnosis of Blennorrhagia in the Female. — Blennorrhagia in very young female Children. — Varieties. — Chronic Vaginitis. — Uterine Blennorrhagia. — Treatment. — Urethral Blennorrhagia in the Female, ... 168

CHAPTER XVII.

Syphilis. — But one Syphilitic Virus. — Its intrinsic Nature unknown. — Indurated Chancre of rare Occurrence. — Generally solitary. — Induration deceptive. — Interval between Exposure and morbid Phenomena. — Abortive Treatment of Chancre, ... 187

CHAPTER XVIII.

Constitutional Treatment of Chancre. — Principles of Health to be enforced. — Analyses of the Blood by M. Grassi. — Influence of Iodide of Potassium on the Blood. — Artificial Syphilization. — Methods of treating the Venereal Disease, ... 199

CHAPTER XIX.

Chancre. — Indurated Chancre. — According to Ricord, can alone impregnate the System. — This Theory not sustained by Facts. — Indurated Chancre rarely followed by suppurating Bubo. — Mercury the best Agent for curing indurated Chancre. — Local Applications. — Swelled Tongue. — Ulcers on under Surface, ... 216

CHAPTER XX.

Masked Chancre. — Definition. — Usual Seat. — Chancre and Gonorrhœa from the same impure Connection. — Chancre upon the Vagina and upon the Os Uteri, ... 232

CHAPTER XXI.

Inflammatory Chancre. — Induced by improper Treatment. — Patients of irregular Habits liable to it. — Treatment, ... 237

CHAPTER XXII.

Phagedænic Chancre. — Difference between Phagedæna and Gangrene. — Treatment. — Potassio-Tartrate of Iron. — Carbonate of Ammonia. — "Swan Alley Sore" of Prostitutes, ... 240

CHAPTER XXIII.

Bubo. — " Bubon D'Emblée." — Bubo occurs in the same side with the Chancre. — That from indurated Chancre rarely suppurates. — True Venereal Bubo indolent. — Treatment. — Sloughing Bubo, ... 254

CHAPTER XXIV.

Secondary Syphilis. — Period of Latency. — Longest time between primary and secondary Lesions. — Shortest time. — Difficulty and importance of a correct Diagnosis, ... 266

CHAPTER XXV.

Syphilodermata. — The Action of the Venereal Poison slow. — Is in the Blood. — Diagnosis of Venereal Eruptions. — Anæsthesia or deficient Sensibility of the Skin. — Cicatrices, ... 273

CHAPTER XXVI.

Secondary Symptoms without primary. — Cases. — Contagion of the Blood. — Transmission of the Venereal Virus from the Nurse to the Infant, and vice versa. — M. Trousseau. — Communicability of secondary Syphilis, ... 281

CHAPTER XXVII.

Syphiloderma Erythematosum or Roseola Syphilitica. — Is the simplest form of cutaneous Eruptions. — Eruptions produced by Balsam Copaiba and Cubebs. — Diagnosis. — Is occasionally confounded with Measles. — Treatment, ... 306

CHAPTER XXVIII.

Lichen. — Diagnosis. — Passes into Tubercles. — Associated with Tubercles, Squamæ, and Pustules — also with Iritis. — Treatment, ... 310

CHAPTER XXIX.

Squamous Syphilitic Eruptions. — Are met with in young Subjects. — Their most prominent Features. — Errors in Diagnosis in Consequence of the Absence of the Copper Color. — Case. — The Squamæ belong either to Psoriasis or Lepra. — Treatment, ... 325

CHAPTER XXX.

Tubercular Syphilitic Eruptions. — Present various Appearances. — Sometimes ulcerate. — Sometimes disappear by Absorption. — Phagedænic Ulcers, and Serpiginous Ulcers. — Perforating or Syphilitic Tubercles. — Treatment of tubercular Eruptions — of ulcerated Surfaces. — Mucous Tubercles, ... 342

CHAPTER XXXI.

Syphilitic Pustules. — Do not yield pure Pus. — Divided into two Groups by Willan. — Of Rupia, two Varieties. — Treatment of Pustular Syphilis, ... 355

CHAPTER XXXII.

Alopecia or Baldness, ... 366

CHAPTER XXXIII.

Ulcers of the Tongue. — Fissures or Cracks. — Treatment. — Sloughing Ulcerations of the Throat. — Local Treatment. — Nitric Acid. — Compound Tincture of Benzoin. — Constitutional Remedies, ... 370

CHAPTER XXXIV.

Syphilitic Diseases of the Nostrils and Nasal Fossæ. — May be secondary or tertiary, superficial or profound. — Insidious in their Approach. — Treatment, ... 386

CHAPTER XXXV.

Syphilitic Iritis. — Sometimes a secondary, sometimes a tertiary Affection. — Symptoms. — Diagnosis. — Treatment. — Mercury. — Mr. Carmichael's Substitute. — Dr. H. W. Williams's Plan of Treatment, . . . 391

CHAPTER XXXVI.

Tertiary Syphilis. — Organs and Tissues involved. — Syphilis and Scrofula. Ricord, Lugol, and Phillips. — Tubercula Gummata. — Rarely met with. — Diagnosis. — Cases. — Syphilitic Gummata in the Muscles — Lungs — Liver — Brain — Bones, etc. — Treatment. — Iodide of Potassium, ... 401

CHAPTER XXXVII.

Syphilitic Sarcocele, or Orchitis. — Belongs to no particular Period of Syphilis. — Commences in the Tunica Albuginea. — Suppuration rarely takes place in the Testicle. — Atrophy of the Gland. — The Disease apt to recur. — Diagnosis. — Treatment, ... 416

CHAPTER XXXVIII.

Diseases of the Periosteum and Bones. — Syphilitic Osteocopes. — Nodes. — Cranial Exostoses. — Tumors on the Dura Mater. — Cases of Intracranial Affections related by Mr. Todd of London — by Dr. Reid of

Ireland. — Case related by Mr. Reeve. — Case in the Author's Practice. Case at Rainsford Island Hospital. — Diagnosis. — Treatment of Tertiary Pains — of Nodes. — Mercury. — Local Treatment, ... 421

CHAPTER XXXIX.

INFANTILE SYPHILIS.

Not always secondary. — Procreating Element the Medium of contaminating the Fœtus. — Blight of Ovum and Abortion. — The Circulation the most common Mode of infecting the Fœtus. — Infection rarely communicated to the Child by the parturient Mother. — The milk of a Syphilitic Nurse poisonous. — An Infant born with Syphilis cannot infect its Mother, but may a strange Wet-nurse, etc., ... 432

GONORRHŒA AND SYPHILIS.

CHAPTER I.

BLENNORRHAGIA.

For a very long period, the identity of syphilis and gonorrhœa was a fruitful theme of debate; and opinions the most contradictory were entertained by the authors and schools thus engaged in controversy. But the times have changed; and the dawn of a new and better epoch now opens upon the path of the medical practitioner. By the talents, and the patient and well-directed labors of some of the most eminent writers that have come upon the stage during the last quarter of a century, the laws that govern the two diseases we are about to consider, have been brought from their long night of obscurity to the light of day, and are now comparatively well understood. And while it is a matter of congratulation that many of the theories which once flourished, and held a portion of the medical world spell-bound in error, have fallen asleep with the renowned personages who promulgated them, there is equal occasion to rejoice that the field of therapeutics has at last been explored with a large amount of success, and its various products, which were once used without method, without reason, and without mercy, are in more competent hands, and are made subservient to a more rational and satisfactory treatment of the maladies in question.

At the present day, the more enlightened members of the profession agree in the opinion that gonorrhœa is not a venereal affection; and yet as gonorrhœa is usually contracted under circumstances identical with those that give rise to syphilis, a treatise on the latter disease, however judiciously

prepared, would be regarded as deficient in design, unless the former complaint received a due share of consideration.

Gonorrhœa, blennorrhagia, clap, and urethritis, are used as synonymous terms, and are employed somewhat indiscriminately to denote inflammation of the mucous membrane of the urethra and other portions of the genito-urinary passages, attended with infectious, muco-purulent discharge, and a scalding pain in micturition, consequent upon impure sexual congress. The discharge is not uniform in its physical character or composition. At first, it may consist almost entirely of mucus; in a few hours the mucus will contain pus-globules, which increase in relative proportion, until the disease reaches its climax. As soon as it begins to wane, and to pass into its ultimate stage, the morbid secretion is again changed, and is once more characterized by a preponderance of mucus, until at last it becomes nearly transparent; — thus indicating that the pus-globules, upon which its contagious properties are supposed to depend, have ceased to be formed. This abnormal discharge is the blennorrhœa *luodes* of Dr. Good, the gonorrhœa *impura* of Cullen, the *venereal catarrh* of Capuron, the *catarrhal primary syphilis* of Wallace, the *chaude-pisse*, as it is called in the vernacular and graphic parlance of the French populace. Still other names might be cited as applied to inflammation of the male and female organs of generation, accompanied with muco-purulent secretion, having a character totally different from the specific virus of true syphilis, although received in the same manner and by the same organs; — its medium of reception being cohabitation with an infected individual. No generic term, however, which has reference to the complaint, is free from objections; and, until some better phraseology is introduced and acknowledged in this department of nosology, we must be content to avail ourselves of technical expressions that are sufficiently understood, and that have so long and so well answered all practical purposes.

Causes. — Simple urethral running, or blennorrhagia *simplex*, in the male, consists in an increased secretion from the urethral glands or follicles, and proceeds from mere local irritation, — is destitute of any contagious element or virulence

of any kind, and may be produced by a variety of causes. Of these causes, one of the most frequent in the opinion of some writers, is, sexual intercourse with a female who is laboring under leucorrhœa, or some other morbid condition of the vulva, vagina, or uterus, which may furnish a catarrhal discharge possessing more or less acrid properties, but specifically different in its nature from the malignant gonorrhœa *impura* just mentioned, and which alone can be propagated. Men have also been known to receive a blennorrhagia from healthy women with whom they have had sexual intercourse while the menstrual flux has been upon them. The vaginal secretions, just previous to menstruation, will likewise occasion urethral irritation in men of peculiar susceptibilities. In women, blennorrhagia is a complaint rarely met with, compared with the frequency with which it falls to the lot of men. Ricord states, with characteristic brevity, that women give twenty claps for one which they receive. Particular articles of food, such as salted meats, cayenne pepper, ginger, etc., have the reputation of causing mild blennorrhagia. Some persons cannot eat asparagus without having a gonorrhœal discharge from the urethra, a few hours afterwards. Spirituous liquors, beer, and coffee, have been accused of producing the same effects; so, also, the use of cantharides, injections, bougies, and pessaries, will give rise to a morbid secretion closely resembling ordinary gonorrhœa. The same results occasionally supervene upon violent and long-continued dancing, frequent venereal indulgence, and the want of co-aptation in the genital organs of the two parties. Masturbation, rheumatism, and gout will likewise occasion gonorrhœa. Druitt mentions a case of most obstinate local irritation, attended with urethral discharge, brought on by riding several miles on horseback, without a saddle. The patient was a married man, and had a tendency to irritation of the mucous membranes. During treatment he suffered a severe attack of rheumatism. Dr. Blackman relates the case of a patient seventy years old, who was subject to gout, and, during one of his attacks, was seized with a most copious blennorrhagic discharge from the urethra. Dr. B. is positive that this discharge was induced by gout. Dr. Watson, of New York city, has seen two cases of the same kind. Labor and abortion are to be reckoned among the causes that give rise to blennorrhagia. Leu-

corrhœal discharges in the female are supposed to be capable of generating in the male an assemblage of phenomena almost precisely like those developed in ordinary gonorrhœa derived from impure connection. With reference to the contagious nature of leucorrhœal matter, Whitehead says, "if questioned on the subject, I should have no hesitation to return an answer in the affirmative, in all cases where the discharge in the female exhibits decidedly purulent properties, having myself witnessed several incontestible instances of the kind."

Hitherto no success has attended any experiments or examinations that have been made with a view to detect the characteristic differences between a true gonorrhœa and some other discharges from the genital apparatus of the female, and which, it is said, occasionally excite a mild gonorrhœa in the male.

The medical practitioner is sometimes called upon to give his opinion on the question of suspicion, and to adjust difficulties which spring up within the domestic circle in connection with this embarrassing subject. As the conscientious interpreter of events, he can feel justified in expressing a conviction that blennorrhagia does not always have its origin in a specific virus, nor absolutely imply moral delinquency on the part of any one; for the accident may take place under the most varied circumstances, and from a multiplicity of causes, as detailed above. The bare fact that a man or woman has the complaint, does not necessarily carry with it demonstrative proof of guilt. The disease may happen to the most virtuous and pure individual, male or female. If the surgeon can obtain access to all the antecedents in the premises, without concealment from any quarter, he will have no difficulty in arriving at a true diagnosis. A great and not infrequent obstacle which the medical attendant is compelled to meet, in endeavoring to form a correct opinion, is this: he must judge in part from the general character of the patient; and yet the general character for truthfulness, in matters affecting disease of the genital organs, cannot be depended upon. Many persons, who are perfectly reliable on all other occasions, will not hesitate to deceive their medical advisers concerning impure connections, even when they know that deception, in any degree, will operate against their interests, perhaps for life.

Were it possible to collect all the reputed sporadic cases of

simple blennorrhagia that occur in any one of our large cities during the average professional lifetime of the physician, the number of such instances, reckoned in the abstract, might seem considerable; and the sensualist might essay to appropriate the fact to his personal advantage, in the hope that it might shield him from the multitude of his sins, however frequently he had gone astray into the path of licentiousness. But if the history of every blennorrhagia could be brought to light, I believe it would appear that for every instance not coupled with a departure from rectitude, hundreds would be found to originate under directly opposite circumstances. So that while the medical man admits that various innocent causes may induce gonorrhœal discharges, I think he may feel warranted in the opinion that the combined agency of all these sources is quite insignificant, compared with the agency attributable to the one chief cause, namely, cohabitation with an individual affected with a specific and contagious blennorrhagia; a disease of the genito-urinary organs, arising from an animal poison generated by impure sexual intercourse, and easily confounded with various non-specific, non-contagious, inflammatory affections, which occasionally attack the same organs, and are likewise characterized by secretions more or less puriform. But these discharges are minus the true, infectious, gonorrhœal element. In cases, however, where there is ground for reasonable doubt as to the cause of blennorrhagia, it is right that the suspected party should have the benefit of that doubt. The medical witness will be justified in leaning somewhat to the side of mercy.

I have corresponded, and otherwise conferred, with many medical gentlemen, with a view to obtain their opinion with regard to simple leucorrhœa as a cause of contagious gonorrhœa. Those who have been long in practice, and who have had large experience in the treatment of both diseases, consider it a libel on the female sex to attribute the latter disorder to the former. One distinguished surgeon, who has probably seen as many cases of urethritis as any man in the country, informs me that he never saw an instance which he thought was occasioned by leucorrhœa. Were this disease capable of giving rise to a veritable gonorrhœa, few married men in the wide universe would escape being poisoned with it by their wives, for it is well known that leucorrhœal discharges afflict,

more or less, a majority of adult females. I feel bound, per contra, to cite the opinion of a junior correspondent, whose scientific acquirements I greatly respect, and who occupies a favorable post of observation in the chief city of our union. He writes: "In reply to your note asking me to give you my views, derived from personal observation, as to the possibility of a woman affected with simple leucorrhœa, or during her menstrual period, communicating a gonorrhœa to the male, I would state that I have no doubt, whatever, as to the possibility of such communication; and I would go even further, and assert that a *vast majority* of cases of gonorrhœa in the male, arise in this manner from intercourse with women who have not the disease themselves." During a practice now of thirty years, I have had scores of patients, who have pretended that their urethritis might have been derived, or probably was derived, from the vaginal or uterine secretion now alluded to; but I have never seen any evidence that convinced me of the fact. My faith in the power of leucorrhœal secretion as a source of blennorrhagia in the male, is scarcely equal to a grain of mustard seed; and I usually turn a deaf ear to all such specious explanations. I am unable to recognize this antecedent as the procuring cause of such an event. The subject, however, is one of which no man has the key of absolute knowledge. It must, from the very nature of things, always remain a matter of opinion. My own coincides with that of Sigmund — *that gonorrhœa alone produces gonorrhœa.**

I will here introduce an instance of mild urethritis, the cause of which is not difficult of explanation; but which, had it concerned parties less intelligent in medical matters, might have given occasion for dark suspicions and recriminations.

A few years since, an intimate medical friend of mine, of unimpeachable character, had an attack of simple blennorrhagia, or pseudo-gonorrhœa. The facts in the case, as related by himself, were these: He had never indulged in illicit inter-

* In conversation a few months since, with a member of the profession, who has been President of the American Medical Association, he remarked that he had long been "on the watch" for a case of gonorrhœa produced by leucorrhœa or by the menstrual discharge, but had never met with one. No man in this country ever enjoyed a more extensive range of observation than the one here referred to.

course, and his wife was above suspicion. He had had no sexual communication with her for about three months, as she was nursing a young infant. One morning, after having connection with her the previous night, he experienced severe irritation and smarting on passing urine, followed immediately by sharp pain, which lasted a few moments, and then subsided until the next period of micturition. During the interval, however, there was a constant sensation of uneasiness in the urethra. On the first day of the attack, the glans penis became swollen, and there was a moderate discharge of glairy mucus, of the consistence and appearance of the white of egg. On the following day, the glans and preputial surfaces were excoriated and decidedly sore. This state of things continued for four days, when the irritation and swelling abated, and the urethral discharge assumed a more purulent character, being thick, pasty, and of a light yellow tint. As the hypersecretion acquired the latter properties, it lessened in quantity, and at the same time the irritation and smarting nearly ceased. At the expiration of ten days, the blennorrhagia and its complications disappeared. Rest and cleanliness were the remedies. The above phenomena did not disturb the harmony or mutual regard and confidence of the parties, who were not only persons of high social position, but of the best intellectual and moral culture. The fact that the symptoms came on so shortly after indulgence, and also that they subsided without medicine, sufficiently separates them from blennorrhagia derived from a contagious virus, which usually requires an incubation of several days before its specific action is developed. The fault was not in the woman. She had no vaginal trouble. The accident was due to the peculiar susceptibility of the other party. Such results, and even worse ones, at least so far as regards the prepuce and glans, are not very uncommon in newly-married men. A few years since, Dr. W. W. Morland, of this city, requested me to see a patient of his, who had a phagedænic ulcer on the prepuce. The patient was twenty-five years old, and had been married one week. In a day or two after his nuptials, the prepuce became enormously swollen and œdematous. The young man bore a good character, and the bride was also without reproach. He sent for a physician, who, after an examination of the parts, announced

to the patient, in a coarse, rude manner, "that he had got the pox," and prescribed accordingly. The young husband was greatly enraged, dismissed the physician instanter, and sent for Dr. Morland, who decided that the lesion was not specific. All the circumstances connected with the case and with the young couple abundantly proved the correctness of Dr. Morland's diagnosis. The phagedænic action, in this instance, set in with great suddenness, was very rapid in its progress, and did considerable mischief before it was arrested.

Urethritis and ulcerations sometimes occur under circumstances so obscure, that the medical attendant cannot arrive at any satisfactory conclusions as to the cause of the affection. In this connection, I submit the following communication relating to two cases reported by Dr. C. E. Buckingham, recently physician to the House of Industry, South Boston: —

"Cases have presented themselves of mucous discharges, and of ulceration, in which I do not in the least degree doubt that impure connection was never had. They have not been numerous. But suppose that one of your own personal friends, who acknowledges that in former years he has had gonorrhœa, comes to you. He has not married. He confesses that within four or five years he has had frequent sexual intercourse; but says that for the last eight weeks he has not touched a female, and that within forty-eight hours there has been itching and redness about the meatus urinarius. On examination, you find there is moisture, but nothing which you can decide at once to be purulent. He is cleanly in his person and dress. Now, can you with any consistency doubt the statement of such a person, who could not have the reason of shame to prevent a knowledge of what you knew before? In April last (1856), such a case was under my care, and was treated at the beginning, simply with an astringent wash to the part. In two or three days there was a profuse muco-purulent discharge from the meatus, into which no syringe or other instrument had been introduced till that time. The disease did not terminate till after the middle of September. It is true, that for days at a time — not more than three — there would be entire cessation of the discharge, and it would then recommence. In this time there was once painful swelling of

the testicle, which yielded easily. I have seen this patient to-day (November 7, 1856), upon other business, and he informs me that since the date mentioned, he had no returns of his trouble.

"My experience with syphilitic cases while in attendance upon the Hospital at South Boston, was not so great as you probably imagine.

"I cannot forbear mentioning one case under my private treatment, which gave me great annoyance, and which you may be able to explain. Several years since, a friend, himself a physician, unmarried, called upon me for advice concerning what, upon any other person, I should have called an indurated chancre, situated upon one side of the prepuce and quite near the frænum. He denied ever having had sexual intercourse at all. He had been treating it for several days with mild astringent lotions, but it constantly increased and had become as large as my forefinger nail. He was fully capable of detecting chancre in any one else, and as capable of treating it; but he called upon me because he could not make out what this was, and with the fullest belief that I should ridicule his statement. He acknowledged the wearing of a pair of riding-trowsers a week or two previous, borrowed from a friend for an afternoon's ride. He had no reason, he said, to think his friend had the disease, or if he had, that he would have loaned him the clothing unless it were known to be clean. I laughed at his account, and proposed inoculation, which he assented to; and his thigh was inoculated by myself with the discharge from the ulcer, and I believe in more than one spot. The apparent chancre was thoroughly cauterized with nitrate of silver, which did not put a stop to its spreading. The prepuce became very œdematous, and the inoculation had no effect. As the sore continued to extend, at his own request, he was put upon mercurial treatment, was etherized, and the part touched with nitric acid. After the separation of the slough formed by the acid, the œdema became so great that it was impossible to uncover the glans; but the sore did not diminish in size. The mercurial was continued for many days without any perceptible effect upon the gums. Several weeks after the discontinuance of medicine, the sore began to heal, and so far as I know, he has never had any symptoms of venereal affection. I am frequently in the habit of seeing this gentleman,

and am quite certain that he is in perfectly good health. I know also that while he was under treatment he became a married man, and am quite certain that his wife is a healthy woman. This is a case for speculation.

"I am, very respectfully, yours,

"CHARLES E. BUCKINGHAM."

In regard to the first case furnished by Dr. Buckingham, the query arises whether the suspicious connection, which is acknowledged to have taken place eight weeks anterior to the blennorrhagia, is to be regarded as the occasion of the urethral difficulty. Instances are on record showing that more than two months may pass away before the gonorrhœal infection manifests itself. Dr. Samuel Morrill, of this city, once had a case quite similar to the one above related by Dr. B. Dr. Morrill's patient had intercourse with a prostitute in Buenos Ayres, and the next day sailed for Boston. The ship had a long passage. In just sixty days from the time he visited this woman, and while he was yet at sea, the man was seized with a violent blennorrhagia, for which he consulted Dr. Morrill as soon as he reached port.

Hunter believed that the period between exposure and the appearance of purulent urethral discharge, ranged all the way from a few hours to several weeks. His opinion was based upon statements and examples furnished by his own patients. His theory was, that the inflammatory action in some constitutions might exist for a long time before the suppurative period.

The second case related by Dr. Buckingham is a legitimate one for "speculation." By inappropriate treatment, patients often convert a harmless pimple, or an eczematous or herpetic vesicle situated on the glans or prepuce, into an ugly, chancrous-looking sore. Nothing is easier than to manufacture such a sore. I have seen not a few created in this manner. In the case under review, Dr. B. had no opportunity to see the lesion "in a state of nature;" and the speculative idea that suggests itself to my mind in relation to it, is, that its normal features had been modified by the applications resorted to, before it came under his inspection. Its final history would seem to prove that it possessed no specific attribute. I once had a case not unlike this. The patient was a pale, thin, feeble-bodied man, forty years of age, and suffered extremely

from dyspepsia. When he called upon me, he had a sore on the glans as large as a half-dime. It commenced as a mere pimple. The patient had tried his own skill at it, and nitrate of silver had frequently been applied. The sore was quite deep. It was not painful, and yielded a very scanty discharge. The man had a nice woman for a wife, and was himself of good character. He ignored all illicit intimacy with the other sex, and I did not hesitate to accept his statement. Although the ulcer bore a strong resemblance to chancre, I did not think it entitled to that epithet. The patient was put upon tonic treatment as far as his system would tolerate; and nitric acid, — two drops to the ounce of water, — aromatic wine, tannin, and weak chlorinated water, formed the local applications. Four months elapsed before he was rid of the sore. He had no bubo nor secondary accidents.

Contagious blennorrhagia, — that is, a blennorrhagia that can be communicated, — is a specific disease. It cannot give rise to secondary syphilitic accidents. In all cases, where such phenomena have followed a gonorrhœa of the urethra, it is certain that true chancres, — such as are termed by French writers *chancres larvés*, — must have coëxisted. M. Baumés, of Lyons, states that simple blennorrhagia, without the existence of chancre in the urethral canal, may be followed by constitutional manifestations, such as well-marked, rounded ulcers on the tonsils, mucous tubercles at the commissures of the lips, about the arms, on the scrotum, — syphilitic ecthyma, papular eruptions, etc. This opinion is not sustained by the history of the disease. There is no well-authenticated example, which proves that an individual, in whom the mucous surfaces have been examined during an attack of blennorrhagia, without the existence of chancre, has ever afterwards had secondary syphilitic lesions in any form. One of the best arguments and proofs that can be offered against the identity of the syphilitic virus and the virus of gonorrhœa, is, that the constant tendency of the first is to produce secondary symptoms, which we denominate constitutional syphilis; while it is equally true that gonorrhœa, however severe, or however protracted in duration, is never followed by such symptoms. In the treatment of gonorrhœa, an erythematous efflorescence of the skin, induced by the free exhibition of cubebs or

balsam of copaiba, is occasionally met with; and if these remedies are continued after the appearance of the preternatural cutaneous redness, a well-marked, lichenoid eruption, accompanied with much itching, is very liable to break out on the trunk of the body and upper portion of the extremities. But this eruption has no pathological relations to gonorrhœa. It subsides in six or eight days after the discontinuance of the medicines that gave rise to it. It is perfectly harmless, and does not in any wise merit a place among syphilitic papules.

Certain consequences and sequelæ follow blennorrhagia, but they are not venereal. Gonorrhœal ophthalmia and gonorrhœal rheumatism are constantly met with; so also swelled testicle, sometimes called blennorrhagic epididymitis, occurs somewhat frequently as an accompaniment or consequence of gonorrhœal discharge. The inguinal glands now and then become engorged and even suppurate, while a man has gonorrhœa upon him. This condition of the glands is to be regarded in the light of a sympathetic affection, — as a bubo, an adenitis, which is no more to be considered a venereal symptom than an engorgement of the axillary ganglia, which may take place while a felon is forming on the finger or a vaccine pustule on the arm.

Diagnosis. — Candidates for medical treatment occasionally imagine that they achieve a great exploit, if by an ingenious fabrication of stories, they succeed in deceiving the physician in regard to the origin of their blennorrhagia. The physician, on the other hand, has no positive means of distinguishing, in all cases, a simple gonorrhœa, not brought on by impure sexual intercourse, from a specific urethritis caught from an infected prostitute. Although in some rare instances of non-specific urethritis, the symptoms assume great severity, yet it may be laid down as a general rule, that they are characterized by comparative mildness. The inflammation is moderate, — producing but little pain or scalding in micturition; the urethral secretion occasions little or no excoriation of the parts with which it comes in contact, and the complaint yields to gentle treatment.

As an instance of the devices resorted to by patients for purposes of deception, let me present the following: —

Case. — A married man who was of good standing in his neighborhood, called upon me one day for the cure of a recent blennorrhagia. His wife was a woman of irreproachable habits, and was in good health. The husband denied all improper behavior, and knew no more than "a dead man" how he could have contracted his disease. I told him that as far as treatment was concerned, it was no matter, — and prescribed copaiba capsules. At his second visit he stated that he had ascertained the source of his gonorrhœa. One evening, just previous to the commencement of his urethral running, he attended a ball, at which he wore a pair of trowsers, borrowed of a friend who had the clap. My patient got rid of his gonorrhœa in about three weeks. Scarcely had a twelvemonth elapsed, before he presented himself for the treatment of secondary syphilis. Tubercles and pustules were scattered upon the face; — the arms and legs were the seat of numerous pustular blotches and ulcers; — the buccal cavity also showed several well-marked syphilitic sores. The man now acknowledged that he had long been intimate with lewd females, — that he had suffered from primary syphilis before he consulted me, — and that the exigency of the circumstances he was in, induced him to withhold the truth in regard to the symptoms, for which he first consulted me.

After all that can be said, the physician must form his diagnosis, in very many cases, from extraneous circumstantial evidence added to that derived from the symptoms themselves. Syphilographers tell us that if a discharge come on only a few hours after connection, and if it have continued several days without inflammatory symptoms, — if the patient have been subject to some discharge, after an excess of venery or of wine, — in all such cases it is probable that he labors under some other form of urethral disease, and that although the intercourse of the sexes may have been the exciting cause, still there may be no imputation on the purity or cleanliness of the female. The hypothesis founded on all these circumstances may be safe in some cases, in others not. In November, 1856, a young man consulted me for a blennorrhagia, which appeared within forty-eight hours after he had connection with a woman of the town. The discharge had existed four days, and was very copious. The other symptoms, usually attendant on urethritis,

were very mild. The patient stated that he had frequently been troubled with the same complaint, but that it had never set in so soon after exposure as on this occasion. He led a sedentary but dissolute life. The disease degenerated into a gleet, which lasted six months, and was finally cured by the application of cantharidal collodion to the penis. That this was an instance of specific gonorrhœa, arising from impure connection, I do not doubt. I have occasionally met with similar instances. Where the urethra has suffered from repeated attacks, and where the patient is a hard drinker, as was this young man, the phenomena of the complaint do not appear with the same regularity as to time or character, as in a first blennorrhagia, and in an individual not addicted to excessive libations.

The average interval between exposure and the occurrence of the blennorrhagic secretion is from four to five days. This fact may help to form a tangible basis, on which to construct a differential diagnosis. All deviations from the time here specified are to be considered as exceptional cases, dependent on peculiar circumstances.

Symptoms. — In relating the history of symptoms, patients generally state, that within twenty-four hours after suspicious coïtus, they begin to notice strange sensations along the urethral canal, such as increased heat, irritation, itching, etc.

There is scarcely any period of incubation or absolute dormancy. The virus commences its action almost from the moment it is deposited. The disease, at first, consists of a little discharge from the lips of the meatus urinarius, which are glazed over, or perhaps become patulous, red, and slightly tumefied. On squeezing the organ, the morbid exudation slides along the canal, and runs down upon the frænum in thick, transparent, ropy masses. These symptoms constitute the initial stage of blennorrhagia. By the second or third day from the first appearance of the mucous secretion, the inflammation acquires more intensity. The discharge becomes more abundant, and instead of being merely a glutinous substance, it is changed to purulent matter — is more consistent — of a greenish-yellow tinge, and emits a disagreeable, nauseous odor, wholly different from that of ordinary pus. The effluvium is

and other eruptions of the skin, the blennorrhagia is prone to assume a chronic character from the beginning, and is then difficult of cure. Sometimes, notwithstanding every judicious medical attention, the complaint progresses steadily, from day to day, for several weeks, the discharge increasing in quantity, with corresponding augmentation of the other symptoms. In such cases, if the previous habits of the patient can be ascertained, it will generally be found that he has led an irregular life, or that he is susceptible to inflammatory affections of the mucous membranes; and the system refuses to respond to the usual influence of anti-blennorrhagic agents. Persons who have had several fresh attacks of this malady suffer for a longer time from each successive one, although the symptoms do not acquire so high a degree of intensity as they do in the first gonorrhœa.

Blennorrhagia often subsides into a chronic form, and terminates in blennorrhœa or gleet. The amount of discharge is reduced to two or three drops in the twenty-four hours. In some cases it is noticed only in the morning; in others, the orifice of the urethra is constantly moistened with it, or its lips are sealed together a great portion of the time in consequence of the drying up of the exudation. The fluid is of a serous or mucous character. If pus globules be present, they separate into a pellicle by themselves, and leave a small, yellow stain upon the patient's linen.

Sometimes the gleet is intermittent. It will disappear for several days, and then, in consequence of some imprudence, will again return. Any irregularity or indulgence on the part of the patient, or any impropriety in treatment, may result in a permanent establishment of this trifling but annoying secretion.

Contagion. — It is impossible to say at what period the specific, contagious element ceases to form a component part of a blennorrhagia. It is more persistent in the female than in the male. Hunter mentions the case of a girl, who had been two years in the Magdalen Hospital, and who infected a man with whom she had connection immediately after she left that institution. The only safe rule for the medical adviser to adopt in giving counsel to those who seek it, is this: while there is any morbid discharge from the genital apparatus, either in the male

secretion during coïtion; and it is fortunate for them that this physiological condition exists in such a crisis. Although it is admitted that, in most instances, gleety secretions are harmless, so far as relates to contagion, yet we possess no means of determining, in all cases, when this element is present and when it is not. Blennorrhœal matter is not uniform in its constitution in the same individual. The amount of pus globules differs at different times. Any high excitement will augment their number, and sexual intercourse is one of the chief causes of this purulent increase. Unless a sample of blennorrhœal exudation were to exhibit the purity of distilled water, when examined with a high magnifying power, no man would be justified in the conclusion that it was bereft of its noxious properties. In announcing his opinion, it is enough for the medical man to know that, under certain circumstances and conditions, gleet is communicable. Cases are recorded of contagion thus communicated, and giving rise to the most disastrous domestic unhappiness. M. Vidal relates two such. The disease was considered of no importance, and marriage was permitted. Separation of the parties was the result in both instances.

CHAPTER II.

TREATMENT OF BLENNORRHAGIA IN THE MALE.

In the male subject, the anterior or balanic portion of the urethra is in a majority of cases the primary seat of gonorrhœa; and the precise point at which the irritation commences is the fossa navicularis. From this focus the disease may extend until the canal is implicated throughout its whole length, unless an effectual check be put to the morbid action by what is termed the abortive treatment. If the patient apply to the surgeon within twenty-four hours from the first appearance of the discharge, the use of injections may in some instances be resorted to with success. In the generality of cases, it is well to order a brisk cathartic before commencing with other remedies. A free action upon the bowels by some saline medicine, will pave the way for beneficial results to be realized from the employment of injections and from large doses of balsam of copaiba or the powder of cubebs. In the treatment of all cases, whether by the abortive method or otherwise, it is important, in every stage of the complaint, to guard against a constipated condition of the alimentary canal. In this particular, advantage may be gained by attention to diet. The free use of oranges, dates, or figs, — a bowl of oatmeal gruel sometime in the after part of the day, will do much toward accomplishing all needful purposes in this direction. If repeated evacuant medicines be given, they will be liable to interfere with the digestive functions, — will render the bowels more and more torpid, — and an increase of the dose will be needed on every successive occasion. In many instances, where free purgation is resorted to, a long and tedious course of treatment is required. Patients of their own accord often pursue a cathartic plan for several weeks, and then report that their urethral difficulty is as troublesome as at the beginning. At least, there seems to be no prospect of its termination, in consequence of the increased action performed

by the alimentary canal. It is important, as auxiliary to more direct and specific measures, to maintain a decidedly open condition of the bowels; but not to annoy the patient by constant doses of sharp, drastic medicines.

Fomentations. — As a local remedy, hot water fomentations exert a most favorable influence in allaying the severity of the symptoms attendant on acute blennorrhagia. They should be applied to the penis and its dependences for fifteen or twenty minutes, many times in the twenty-four hours. Used in the early stage, and at as high a temperature as can be endured without actually blistering the parts, they serve to lessen the irritability of the urethra very speedily; — they allay the pain and scalding in micturition, and relieve the patient of the sensation of dragging weight in the testes, and about the perinæum and hips. On removing the fomentations, the parts should be covered with a single thickness of soft linen. I was first induced to try this method of applying heat and moisture on the recommendation of Mr. Milton.* The utility of the procedure in soothing the diseased organs and the patient, I have repeatedly witnessed. In fact, in nearly all cases where the fomentations have been faithfully tried, the anodyne effect has been immediate; and no untoward result has ever followed. If there be tumefaction and pain in the glans, or if the patient be tormented with chordee, the employment of this cleanly and simple remedy will prove highly serviceable. It needs no addition of poppy-heads, opium, or lead. Its therapeutic action cannot be improved by any medication.

The patient should be restricted to a low diet, and directed to maintain entire bodily repose. By the adoption of these ectrotic measures, he may be saved from a long and tedious gonorrhœa or gleet, and from various complications, which occasionally appear and terminate seriously.

Injections of Nitrate of Silver. — It was formerly believed that a strong solution of this salt, employed as an injection, occasioned stricture; but the idea now is, among those who are partial to its use, that, instead of producing, it prevents that

* It is recommended also by Mr. Acton and other surgeons.

accident. Whether this theory be true or false, I pretend not to say; but in regard to what are called strong injections of silver, I can state that I never prescribe or use them. There are others however, who do; and a few paragraphs must here be devoted to a consideration of their employment. If the injection be resorted to before the inflammatory stage has commenced, that is, before the patient complains of scalding in micturation, it will sometime prove an efficient agent in at once cutting short the disease. Of this there is ample testimony from the highest sources; and there may be cases even in private practice, in which the measure is imperiously demanded. Ten grains of the salt to the ounce of rose water is the usual proportion. The bladder should be emptied immediately before the solution is employed, so that the urethra may have a chance to rest for several hours afterwards. A glass syringe, in perfect working order, is the best. One drachm of the solution will be enough. As soon as the operation is completed, let the patient recline on a bed or sofa, and have warm fomentations applied to the parts for two or three hours. One injection introduced during the initial stage of the blennorrhagia, and allowed to remain in the urethra for about one minute, is sometimes sufficient to annihilate the morbid action. If the secretion still continue, and exhibit a puriform character, the injection is to be repeated in twenty-four hours, as on the preceding day. If two injections fail to accomplish the desired results, there will be little encouragement to make a third trial with this heroic and severe preparation. An injection of three or four grains of the nitrate to the ounce of water is much safer than one of greater strength. It can be repeated three or four times in the twenty-four hours, unless evident ill consequences ensue. This comparatively weak injection may be retained three or four minutes by pressing upon the orifice of the urethra after the syringe is withdrawn. The manner of manipulating with this instrument is a matter of no small importance. The surgeon should use it upon the patient once or twice before entrusting it to his hands. The point should be inserted to the distance of an inch, and the injection allowed to traverse the whole length of the urethra. It will thus be certain to come in contact with the seat of disease, in whatever part of the canal it may be. At the moment the instrument is introduced, the penis should be turned upward

in nearly a perpendicular position, and the lips of the urethral orifice be pressed with the thumb and forefinger of the left hand. The untimely escape of the injection will thus be prevented. If no good effects are realized by the third day, the injection will not succeed at all, and should be abandoned.

Although the abortive treatment is productive of the most beneficial effects in certain cases that present themselves to the regular practitioner, it is manifest that the number of such must be comparatively small. If the discharge have existed more than a day and a night, before the patient applies for relief, it will be too late to make trial of the revulsive method; for the inflammation, in nearly all cases, will be too acute to justify such a procedure. The favorable moment for a fair experiment has been lost; and if now the parties have courage and confidence to engage in it, they will but prepare the way for unwelcome retrospections. The discharge, instead of being a slight adhesive mucus, has become decidedly purulent, and the patient is troubled, although perhaps not severely, with ardor urinæ and other disagreeable symptoms. This state of things is a declaration that the disease has reached a considerable portion of the urethra. Patients are not slow to importune the physician to adopt, at once, the most efficient course of treatment, with the view to a speedy cure. In their impatience and ignorance, and in the hour of their desperation, perhaps, they manifest a readiness to encounter no little hazard and temporary suffering, which the employment of any remedial means may involve, provided the disease, to use their own words, "can be knocked in the head." They generally have great faith in injections of some kind; and in regard to their employment in any individual case, the exercise of a good share of independence, as well as sound judgment, is requisite on the part of the young surgeon, — otherwise he may be unduly influenced by the solicitations and suggestions of the patient.

The abortive treatment has the sanction of the most eminent surgeons. The most important element in it consists in the use of strong nitrate of silver injections. Every practitioner must see that this mode of assailing the disease in its hidden retreat is attended with risk, especially if a solution of ten grains to the ounce be employed. It is, as it were, attacking the enemy by storm. The syringe, charged with the potent

liquid, cannot, at any rate, be wielded by the patient with entire safety; nor can the danger attending its use be essentially diminished if the instrument is handled in the most adroit and cautious manner by the surgeon; for, from the very nature of things, even he cannot regulate the precise degree of local impression produced by the fluid. In this particular it will obey no man's wishes. The instant it is forced from its confinement it glides like a swift torrent along the urethra; and its work, whether for good or for evil, is accomplished instantaneously.

The intense pain which always follows the application of the strong injection is a serious drawback upon its use. Another objection is, that in many instances it not only fails to benefit the complaint, but creates an aphthous condition of the mucous membrane, or sloughing ulcerations, which prove exceedingly troublesome, and are often more difficult to cure than an ordinary gonorrhœa. M. Vidal relates the case of a man whose absent wife was expected home in a very short time after he discovered that he had contracted a gonorrhœa. He applied to Vidal for a sure method of at once arresting the disease; and, as that judicious surgeon could not promise this, the patient consulted another man, who advised a caustic injection, which brought on a severe inflammation of the canal and of the bladder. Vidal was finally requested to take charge of the patient, who was confined to his bed for a month in consequence of the over-action of the injection. Langston Parker mentions the case of a medical student who contracted a blennorrhagia, to cure which he used in the incipient stage a strong solution of silver. An intense urethritis followed, with pains in the abdomen and groins. The young man had peritonitis and an immense inguinal abscess, of which he died in one week.

From the moment the use of the syringe is commenced, an exacerbation of the urethral inflammation is liable to ensue; the discharge also increases, and in some instances the testes suddenly enlarge to three or four times their normal size. Some patients, not of a sanguineous temperament, will tolerate stimulating, and even somewhat caustic, injections with impunity — perhaps with advantage; but if in any given instance a peculiar susceptibility should exist, the fact cannot be known

until the remedy has been tried. In such a case, although the lesion may occupy but a mere point before the injection is introduced, it may immediately afterwards, and as a direct consequence, extend indefinitely to the sound portions of the canal. The spontaneous tendency of the disorder is to spread along the mucous membrane, and even to penetrate the deeper tissues; and any auxiliary impulse from the hands of the patient or physician might augment the mischief. If the surgeon can have entire control over the patient, and be certain that his directions will be carried out to the letter, — as, for instance, where the case is admitted within the walls of a well-regulated hospital at a seasonable time, — then the abortive treatment may be entitled to all the confidence, praise, and success which its advocates claim for it; but, for ordinary private practice, too many objections lie in the way of its adoption.

Balsam of Copaiba. — No article in the Materia Medica enjoys a higher reputation for the cure of blennorrhagia than this. For many years it has been a favorite remedy both in public and private practice. The late Professor Chapman, of Philadelphia, was the first physician in this country to recommend the balsam in the early stage of gonorrhœa; and on his authority physicians generally were induced to prescribe it. Its anti-blennorrhagic powers have been most amply tested and universally acknowledged. In very plethoric subjects, who are accustomed to high living, it is well to relieve the inflammatory symptoms, in the early period of the urethritis, by a smart saline cathartic, before commencing its use. This class of patients occasionally suffer from the severest forms of the disease, accompanied with intense pain as one of the most prominent features. In such circumstances, the case should be conducted for a short time on a strictly antiphlogistic plan, without reference to the specific cause in which it originated. As soon as the local symptoms have abated, the copaiba and other anti-blennorrhagic remedies will be appropriate. Cases, however, requiring such antecedent preparation, are very rare. In the great majority of subjects, the occurrence of painful erections, chordee, scalding in micturition, and other concomitants of inflammation, constitute no barrier to the immediate

use of the balsam with as much freedom as the stomach and bowels will tolerate; for no other remedy can be selected that is so well adapted to allay these phenomena, and relieve the patient of the sufferings which they inflict. It might at first view seem paradoxical that an ingredient endowed with such decided stimulating qualities should be beneficial under such circumstances, but experience has abundantly established the fact. It has long been known by many practitioners to exert a salutary effect in some other diseases of the genito-urinary passages. In strangury from blisters, and in leucorrhœa, it may often be administered with signal relief to the patient.* Although, when given internally, it may be regarded almost as a specific in urethral blennorrhagia, its therapeutic qualities are confined to this variety of the disorder. Its *modus operandi* is not well understood.

When copaiba acts as a purgative, the urethral discharge will frequently be very much diminished, — sometimes will entirely cease; but it will usually immediately return as soon as the revulsive action upon the alimentary canal subsides.

In order to secure its best effects upon the gonorrhœal affection, it is frequently advisable to combine it with some astringent or sedative.

There is a great disparity in the purity and curative value of different samples of the medicine in question. It is often adulterated and rendered unfit for use by being mixed with rape-oil. When thus adulterated, if dropped into water, the drops do not retain their spherical form, as they invariably do in the pure state.† Professor Redwood, of London, states that the oleo-resinous properties of the balsam exist in very different proportions in different samples. The quantity of volatile oil has been found to be twice as great in some samples as in others. In order to estimate its purity, the article must be resolved into its proximate constituents, and these be examined separately. The proportion of volatile oil in different samples, met with in commerce, is, in some cases, as low as thirty per cent., and, in others, as high as sixty per cent.; and the proportion of resin, which differs but little from common resin of tur-

* Vide Chapman's Therapeutics, vol. i., p. 416.

† Journal de Pharmacie et de Chimie, vol. xi.

pentine, varies also to about the same extent. If a drop of the balsam be allowed to fall upon sized paper, and then dried by a gentle heat, the odor of the turpentine can easily be detected during the evaporation, if it has been adulterated.*

To some persons, the taste and odor of the copaiba are extremely offensive, a circumstance which may greatly interfere with its use; and it is difficult to know how to give it so that the stomach of such individuals will not reject it. It is retained best if taken about half an hour after meals. The eructations are thus rendered less offensive. It may be taken in coffee or wine; or, what is perhaps better, let about a drachm of the compound tincture of cinchona be put into half a gill of water, and then drop in the copaiba. It will rise to the surface in the form of a globule, and can be swallowed by most patients without offending the gustatory apparatus. But a still more agreeable and convenient method of administering it is the following: —

℞.	Copaibæ, ...	ʒiij.
	Spiritûs Ætheris Nitrici, ...	ʒss.
	Tincturæ Kino, ...	ʒss.
	Misturæ Camphoræ, ...	ʒij.
	Morphiæ Sulphatis, ...	gr. iv. M.

Dose. — One teaspoonful three times a day.

Usually, an efficient check will be put to the blennorrhagia in eight or ten days by the use of this preparation. No medicine is more prompt or certain in its action than the balsam, although it is difficult entirely to disguise its nauseous quality by any vehicle in which it may be given. With the exception of its bad taste, it is as exempt from objections as any other remedy. If taken with ordinary prudence, it never gives rise to any serious accident. It produces no stricture, no chordee, no swelled testicle, no irritation of the bladder, no gleet. Patients have taken two, four, and eight drachms at a dose, morning and night, at the very onset and in the most acute stages of gonorrhœa, with entire success and without any preparatory treatment. Such doses, however, are not safe. Instances are recorded where large quantities have been resorted to

* Dublin Quarterly Journal of Medicine, vol. v.

by the patient, on his own responsibility, and the result has been an increase of the urethral inflammation and discharge. Incontinence of urine has been induced by excessive doses. A few years ago a gentleman from the South consulted me for a recent gonorrhœa. He had taken lodgings at a large hotel in company with some friends, and for fear of being detected, he desired that a cure might be accomplished in the most summary manner. I prescribed the balsam in half drachm doses three times a day. Instead of following the directions, the patient took nearly half an ounce after a supper of oysters, and at a late hour went to bed. It was not long before he was seized with a sort of cholera morbus, — that is, he had griping pains in the stomach and bowels, — vomiting and purging, which lasted several hours. His urethral trouble vanished and did not return. The severe gastro-enteric attack doubtless served as a *coup-de-main* in extinguishing it.

When a person applies for treatment and is particularly anxious to be speedily rid of his gonorrhœa, he should be advised, as already stated, to abstain from exercise. If he would be delivered from his trouble in the shortest possible time, he can receive this boon only by keeping still; and unless he conform to this condition, it will be a vain task to attempt a rapid cure by any course of treatment. The mere fact that the individual is abroad, whether on business or pleasure, will effectually prevent any remedies from accomplishing a speedy removal of his blennorrhagia. And it is the province and the policy of the medical attendant to state these things in the most explicit manner. If the man be unable or unwilling to pursue the plan proposed, he should be distinctly informed that the time requisite for his cure admits of no sort of calculation. It may be several weeks, or it may extend to many months; and all this, because a few important items in the management of the case have been disregarded. In adjusting preliminaries, a good understanding between the parties should exist. The physician, from the very fact that he takes charge of the case, pledges himself, by a moral contract, to employ the best means within his knowledge for the benefit of his patient; and the latter, on his part, is under equal obligation to coöperate with the physician in carrying out the prescribed treatment. By the observance of such an arrangement, a safeguard is created against all future

collision, which might otherwise spring up and seriously disturb the amicable relations of the two parties.

Among those who seek the aid of the surgeon for the cure of disease resulting from improper commerce with the opposite sex, it need scarcely be said that a troublesome fellow now and then presents himself, who does not hesitate to take advantage of his medical adviser, in some way or other, especially if the latter be a young practitioner. Some individuals are extremely exacting, and will wittingly endeavor to extort strong assurances as to a cure; and afterwards, if the treatment do not progress favorably, they will allude to some casual expression that escaped the physician, and charge him with a lack of skill, while they themselves, from recklessness or something worse, have been doing little else than placing barriers in his way, and defeating the best and most assiduous efforts which he has employed in their behalf. In such cases — and I have certainly known such — the physician does every thing within the range of medical science, while the captious patient does next to nothing in the right direction. These remarks are not a mere irrelevant digression. They have been suggested by the fact, that young surgeons somewhat frequently express regret that in identifying themselves professionally with cases, they have, from sentiments of delicacy, or from apprehension of losing practice, omitted to enforce the claims due to them from the patient, and in consequence of their pusillanimity have experienced nothing but disappointment and loss. But let us return to the consideration of the direct physical treatment.

Capsules of Copaiba. — Individuals are occasionally met with who cannot use the liquid balsam. The stomach refuses to retain it, or perhaps no little gastric distress is experienced, although the medicine may not be vomited. In such cases the remedy can be administered in capsules, and its objectionable qualities will be less likely to disturb the patient. They should be taken soon after eating, and as freely as the stomach will bear. Capsules, containing a combination of copaiba and the extract or oil of cubebs, are kept by all good druggists; and sometimes I have found them more efficient than those composed of copaiba alone.

Where it may be deemed important to employ, with the

copaiba, remedies that exert an anodyne influence upon the organs, as well as a modifying agency upon the qualities of the urine, the subjoined formula will be found useful: —

℞ Copaibæ, ... ʒ vj.
Magnesiæ Calcinatæ, ... ʒ iss.
Extracti Hyoscyami, ... ʒ ss.
Pulveris Camphoræ, ... ʒ j.
Theriacæ, ... ʒ iij.
Micæ Panis, ... ʒ iss.

M. ft. electuarium. Dose: One drachm three times a day.

This is a favorite prescription of Mr. Acton. He claims for it that the magnesia neutralizes the urine, that the hyoscyamus allays irritation of the bladder or prostate, and that the camphor checks any disposition to involuntary erections, which, without it, often become a troublesome complication. A combination of the balsam with the powder of cubebs makes a good compound, and may be employed according to the annexed prescription: —

℞. Copaibæ, ...
Pulveris Cubebæ, āā, ... ʒ j.
Liquoris Potassæ, ... ʒ iij.
Misturæ Camphoræ, ... ʒ iv.
Aquæ Cinnamomi, ... ʒ ij.
Morphiæ Sulphatis, ... gr. ij. M.

Dose. — Two drachms three times a day.

In whatever form or combination the balsam is administered, the patient should be directed to continue its use in gradually diminished quantities for ten or twelve days after the blennorrhagia has entirely ceased.

Copaiba as an Injection. — The repeated experiments of Ricord, Egan, and others, tend to show, that the balsam of copaiba, when employed as an injection, has no power to arrest gonorrhœal secretion, nor to allay the irritable and inflamed condition of the urethra. The theory is, that the remedy requires to undergo a certain modification, which can only be effected by its transit through the kidneys, before it can exert any salutary effect on the urethral disease. What this trans-

formation or change is, has never been demonstrated. Very recently, statements have been made by M. Dallas, of Odessa, and by Dr. Dick, of London, to the effect that they have employed the balsam as an injection in gonorrhœa with complete success. The former surgeon reports sixteen cases treated thus, without any auxiliary measures. The latter gentleman states, that for the last two years he has employed the copaiba as an injection with excellent benefit. He has also tried the oil of copaiba, which, he says, answers extremely well. For the last mentioned substance, the following is his formula: —

℞. Olei Copaibæ, ... ʒj.
Pulveris Acaciæ, ... ʒij.
Aquæ Fontanæ, ... ʒvj. M.

In subacute gonorrhœa and in gleet, this injection may be used twice a day for a few days; afterwards more frequently.

Successful results have been reported of the balsam when used as an enema for patients who could not tolerate it on the stomach. I have never made trial of it in this manner; but Velpeau speaks favorably of it when thus administered. The following prescription can be employed: —

℞. Copaibæ, ... ʒij.
Mucilaginis Acaciæ, ... ℥iss.
Tincturæ Opii, ... ʒss. M.

For an enema, which may be repeated two or three times in the twenty-four hours.

Cubebs. — The reputation of this therapeutic agent, in exerting an immediate and favorable specific action upon the lining membrane of the urethra in all stages of blennorrhagia, is fully established; and by many surgeons it is more frequently prescribed for its cure than any other article in the materia medica. The dried, unripe berries, are the officinal portion. Like the balsam of copaiba, they possess stimulating qualities, which are particularly exerted upon the urinary organs. They occasion constipation in some patients; in others, just the reverse.

The berries of cubebs are sometimes adulterated with com-

mon black pepper. They deteriorate by age; and, in powder, become rapidly weaker in consequence of the escape of their volatile oil. They should, therefore, be kept whole; or, if pulverized, should be preserved in a glass jar with a close stopper. Of the powdered berries the patient may take one or two drachms three times a day in a gill of milk or water. Or, the powder may be used in what is called the enchanted wafer, a French article found in many drug stores. I have prescribed the remedy in question alone, and variously combined with other ingredients. The annexed formula I have commonly employed for the last few years: —

℞ Pulveris Cubebæ, ... ℥ viij.
" Cinnamomi, ... ʒj.
" Aluminis, ... ℥j.
M. Div. in chart. No. xxxij. Dose. — One powder three times a day.

This combination of cubebs and alum will usually diminish the urethral discharge in two or three days; and if the patient will comply with the suggestions already given in regard to absolute rest, he will find that in eight or ten days his blennorrhagia will be nearly at an end. But let him recollect that first of all things, he should make up his mind to observe a perfectly quiet state of body; and even to keep in a recumbent posture if he expects to experience the best effects in the shortest time. I have occasionally heard physicians speak, with self-complacent air, of making rapid cures in the majority of instances that come under their charge. Such success may have happened; but when it has, I am sure that the strictest avoidance of exercise must usually have constituted an element or condition in the treatment. The precise time requisite for a complete and permanent restoration of the parts to a normal state, is as uncertain as the winds; and in specifying the number of days, within which to cure a given case, the young practitioner had better show his wisdom by his prudence.

As with the balsam copaiba, so with cubebs; they should not be discontinued under a fortnight after the cessation of the urethral discharge. Some excellent surgeons give two ounces of the cubebs in the twenty-four hours. This, it seems to me, is an excessive quantity, and not entirely safe. Well-authenticated instances have been reported of hernia humoralis

being induced by large doses of the powder, while the blennorrhagia was thick and puriform, with scalding in micturition, chordee, etc. In one case, the dose was two drachms, four times a day. The disease was suddenly arrested, and swelling of the testicles, with much inflammation of the cord, supervened. The patient was confined with this complaint for two months. On the subsidence of the glandular affection, the blennorrhagia re-appeared; was again puriform and thick, but not attended with urethral pains. Subsequently the discharge yielded to small doses of the cubebs. Another instance of gonorrhœa, accompanied with severe scalding, was treated with cubebs; the discharge was suppressed; but acute inflammation of one of the testicles and cord succeeded. There was great effusion into the tunica vaginalis of the testes, and suppuration was threatened.* Accidents, however, from the use of cubebs, are extremely rare. Some physicians imagine that they are not well adapted to cases in the acute stage, where the inflammation runs high. It is always the more prudent course to order the patient a cathartic, after the operation of which, he may commence with the cubebs, without regard to the degree of urethral inflammation that may be present, unless it be of the most intense description. I have many times tried the article with plethoric subjects, and have never seen any trouble from its use, nor had occasion to regret that it had been employed.

Cubebs will sometimes speedily arrest blennorrhagia under very unfavorable circumstances, as will be seen by the following case, which is an exception to the general rule.

October 1, 1856. — A gentleman, thirty-six years of age, unmarried, consulted me for the cure of an acute gonorrhœa, which had troubled him for eight days. He had all the ordinary symptoms of the complaint, — scalding, the glans swollen and of a fiery red color, œdema of the lips of the meatus, and copious, puriform secretion, sense of dragging weight in the scrotum, etc. He was a stout, athletic man, actively engaged in out-door business in co-partnership with another person; and he stated that it would be impracticable for him to omit

* Med. Chir. Review, vol. xxiii. p. 550.

work for a single day, as this would lead to inquiry and perhaps to exposure, — that if I would prescribe a proper line of treatment, he would be content. As to the time that might be required to accomplish a cure, and in regard to any ill results that might ensue in consequence of his not abstaining from business, he would take his chance, and would absolve me from all responsibility. He resided more than one hundred miles from Boston, and could not conveniently see me until several weeks. The following powders were ordered : —

℞. Pulveris Cubebæ, ... ℥ xij.
" Cinnamomi, ... ʒ iss.
" Aluminis, ... ℥ iss. M.

Dose. — Two drachms three times a day in water.

He took the powders for five days, when his blennorrhagia and its accompaniments wholly disappeared. He discontinued the medicine as soon as the urethritis ceased. This was contrary to the directions given him. He did not abate his activity in business for a single hour. In three months after the gonorrhœa was cured, he discovered a gleet amounting to two or three drops during the twenty-four hours, — of thin, transparent, glutinous fluid, that did not stain his linen. For this secretion, he resumed the above medicine, of which he had a supply. After a trial of it for nearly three weeks without relief, he called a second time for advice. He was directed to take from six to eight capsules of balsam of copaiba and oil of cubebs, *per diem*, for the gleet; and in fifteen days after commencing with them, was well, and had no relapse.

The tincture is an elegant and convenient form of administering cubebs. It may be given in doses of one or two drachms, four or five times a day; or be combined with other agents of well-known efficacy in gonorrhœal affections, thus : —

℞. Tincturæ Cubebæ, ... ℥ ij.
" Cantharidis, ... ℥ iss.
Misturæ Camphoræ, ... ℥ iij.
Morphiæ Sulphatis, ... gr. ij. M.

Dose. — Two drachms three times a day, in half a gill of cold water.

There is one other preparation of cubebs, which contains all the medicinal properties of the berry, and may be combined with mucilage, so as to constitute an agreeable and efficient

dose. I refer to the fluid extract, which may be prescribed thus: —

℞. Extracti Cubebæ, ... ℥ iv.
Mucilaginis Acaciæ, ...
Misturæ Camphoræ, āā, ... ℥ ij.
Morphiæ Sulphatis, ... gr. ij. M.

Dose. — Two drachms three times a day, in half a gill of cold water.

Some medical men are altogether skeptical as regards the curative properties of cubebs; but I am confident that those who do not acknowledge its value in cases of blennorrhagia, cannot have made a fair trial of the pure article. Specimens of the pulverized berries, that have deteriorated from having been exposed in large jars, imperfectly closed, are occasionally met with in druggists' shops. If such a medicine be prescribed, no wonder that it leads to disappointment and distrust.

Besides the prescriptions already given for the use of balsam of copaiba and cubebs, other combinations may be tried in cases that resist the more simple and ordinary formulæ. The subjoined note embraces several prescriptions which may be found useful.

Note. — *Buchu* has the reputation of being gifted with anti-gonorrhœal powers. Mr. Henry Hancock, recently attached to the British Army, states that he has treated, within a twelvemonth, more than one hundred cases of blennorrhagia by the administration of the infusion of the leaves, with entire success; rarely having recourse to injections, excepting where the disease had been neglected. — *London Lancet, December*, 1856.

The copaiba may be taken with the oil of cubebs, and in some cases will be found to agree better with the stomach than the capsules, or any other combination: —

℞. Copaibæ, ... ℥ ss.
Olei Cubebæ, ... ℥ ss.
Liquoris Potassæ . . . . . ℥ iij.
Spiritûs Myristicæ, ... ℥ ss.
Misturæ Camphoræ, ... ℥ j. M.

Dose. — Two table-spoonfuls, three times a day. — *Druitt.*

In chronic gonorrhœa, or gleet, the balsam and the cubebs may be advantageously given with preparations of iron: —

℞ Pulveris Cubebæ, ... ʒ ss.
Copaibæ, ... ʒ ij.
Ferri Sulphatis, ... ʒ j.
Terebinthinæ Chiæ, ... ʒ iij. M.

To be made into boluses of ten grains each. Dose. — From fifteen to thirty a day. Usefully employed in lax constitutions.

The cubebs may also be given in powder with the carbonate of iron: —

℞ Pulveris Cubebæ, ... ʒ j ad ʒ ij.
Ferri Carbonatis, ... ʒ ss ad ʒ j.

M. ft. pulv. This mode of administering cubebs is much and successfully employed after the acute symptoms of a blennorrhagia have subsided. A powder should be taken three times a day. — *Langston Parker.*

℞ Copaibæ, ... ʒ iss.
Magnesiæ Calcinatæ, ... ʒ j.
Pulveris Aluminis, ... gr. xv.
" Catechu, ... ʒ iss.
" Opii, ... gr. xv.
Spiritûs Menthæ Piperitæ, ...
" Canellæ, āā, ... gtt. xl. M.

For an electuary. M. Beyran administers this electuary in subacute gonorrhea, at the commencement of the discharge, and before the inflammation has extended throughout the urethra; also in the gleet. The dose is a teaspoonful three times a day, in a moistened wafer. When the discharge is arrested, the dose is to be gradually diminished. — *Union Médicale, August*, 1855.

The formula now used at Bartholomew's Hospital is: —

℞ Copaibæ, ... gtt. xv.
Misturæ Acaciæ, ... fl ʒ j.
Cubebæ, ... ʒ j.
Spiritûs Ætheris Nitrici, ... gtt. xx.
Misturæ Camphoræ, ... ʒ x. M.

The above quantity is to be taken thrice daily. It is a standard prescription at the above institution. It is also ordered for females, when it is thought necessary to administer copaiba to the latter class of patients. — *Holmes Coote, on Syphilis.*

The foregoing preparations of copaiba and cubebs are not materially different in their specific action. Either of them is sufficient to cure all ordinary cases of uncomplicated blennorrhagia, and no ill consequences will be entailed upon the patient. But let him remember that to secure the most speedy and desirable results, he must coöperate in all well-directed therapeutic and hygienic measures. In such circumstances the skill of the surgeon will seldom be thwarted, and there will rarely be occasion to resort to an endless succession of remedies.

RELAPSES IN GONORRHŒA.

Notwithstanding the repeated cautions given to patients not to discontinue the use of remedies until several days after the

cessation of the blennorrhagic discharge; and, notwithstanding our advice to them not to respond to the calls of business or pleasure, they will, either from necessity or recklessness, disregard the warning; and, as a consequence, the enemy will suddenly re-appear, and the battle, which had apparently resulted in triumph, must be repeated.

It frequently happens that this last condition is worse than the first; for the morbid action, now re-established, will in all likelihood be more persistent, and the indiscretion of the patient may have laid the foundation for an interminable gleet. In cases of recurrence, the inflammation is less intense than at first, but it occupies a larger portion of the mucous membrane, extending probably to the posterior part of the canal. It also penetrates into the deeper structures; and, whatever method of treatment is instituted for its removal, the remedies are generally less efficacious than in the early period of the disease. The individual himself is also in a less favorable condition. He has become impatient and fretful; is less buoyant with hope, less confiding, less respectful, less inclined to carry out any measure that may be required by the new state of things which exists, and is now, more than ever, rebellious to all restrictions. Nothing goes right.

The following instances of relapse are taken from my record book.

Case I. — *January* 3, 1856. Patient, a young, unmarried man. Gonorrhœa noticed twenty hours ago. Third attack. Discharge moderate, and scarcely purulent. No pain or scalding in micturition. Lips of meatus œdematous and pouting. No other symptoms.

℞. Pulveris Cubebæ, ... ℥ viij.
" Cinnamomi, ... ʒ j.
" Aluminis, ... ℥ j. M.

Dose. — Two drachms three times a day, in a gill of water.

Jan. 7. Stomach revolts at the medicine, which was discontinued, and copaiba capsules substituted, — two, morning, noon, and night. *Jan.* 19. Gonorrhœa stopped. Patient has in part refrained from his usual active habits; but states that he must

now fully resume his employment, which is that of a clerk. Would continue the capsules. *Jan.* 25. Discharge has re-appeared more copiously than ever. There is no scalding, no pain, no involuntary erection, no chordee. Cubebs and alum, as at first, resumed; and, as auxiliary, the following injection: —

℞. Plumbi Acetatis, ...
Zinci Sulphatis, āā, ... gr. iij.
Aquæ Rosarum, ... ℥ vj. M.
Use with a glass syringe three times a day.

February 20. Discharge has ceased, excepting a drop or two in the morning, for the last five days. Injections and powders omitted; cantharidal collodion applied to penis. This was repeated three times, when the gleet wholly disappeared.

Case II. — *Acute gonorrhœa — suspension of discharge — recurrence — cure — suppurating bubo in both groins.*

January 10, 1856. Patient aged twenty-five; unmarried; remarkably robust. Gonorrhœa ten days. First attack. Thought it would cure itself, but, as it became urgent, he took alarm and sought advice. Discharge profuse and puriform; severe scalding; prepuce inflamed and excoriated; no chordee; inguinal glands somewhat enlarged, but without pain or tenderness. Patient had kept at his business as clerk "down town." Said that, come what might, he could not absent himself from his post *then*. He took a dose of sulphate of magnesia, after the operation of which, he was put upon the use of the compound cubebs powders, — six drachms *per diem*, — low diet. *Jan.* 18. Discharge has diminished one half. Other symptoms improved satisfactorily, except the inguinal swellings, which remained stationary. Patient got leave of absence for one week, during which he remained quiet at his boarding-house. Was advised to take the powders night and morning; and at noon, two copaiba capsules. *February* 5. Blennorrhagia has ceased. Inguinal enlargement on the increase, with frequent, sharp pains. Continue internal remedies in half quantities. Tincture of iodine and hot fomentations to groins. Patient is compelled to return to his place of employment.

LANE LIBRARY

Feb. 13. Discharge has re-appeared. No scalding, no chordee, no urethral pains. Inguinal glands still enlarging, and are painful.

℞. Capsules of copaiba and oil of cubebs, . . . No. viij. *per diem.*

And as an injection:

℞. Plumbi Acetatis, ...
Zinci Sulphatis, āā, ... gr. iv.
Aquæ Fontanæ, ... ʒ viij. M.

The urethral discharge degenerated into a gleet. To cure this, one application of cantharidal collodion proved sufficient. After an interval of three months from the commencement of the gonorrhœa, the inguinal glands suppurated, and nearly three months more elapsed before the abscesses entirely healed.

CASE III. — *Mild gonorrhœa — suspension of discharge — frequent relapses produced by sexual indulgence — final cure.*

October, 1855. A. B., a married man, aged thirty-two. Strong and healthy; an ardent devotee at the shrine of Venus for many years, and this was his third gonorrhœal visitation. It came on three days before I was consulted. Discharge moderate and muco-purulent; slight ardor urinæ; glans inflamed and tumefied. Patient was connected with an extensive trading house; and, in making arrangements for treatment, he stated that he could not absent himself from business for a single day. All he wanted was, that the best course might be adopted which the circumstances would allow, and he would find no fault, whatever might be the result. He asked for something to take that had no smell, and the capsules of copaiba and oil of cubebs were prescribed. These he took as freely as the stomach would bear, and in three weeks the urethral symptoms disappeared. Soon after this, he had connection with a woman for several successive nights. The discharge returned, and the capsules were renewed; the lead and zinc injections were also recommended. At the expiration of about another three weeks the blennorrhagia again stopped; and the infatuated man renewed his libidinous habits. Thus a succession of indulgence, relapse,

and cure took place some seven or eight times in the space of about as many months. The patient was at last convinced that he must either forego the beastly indulgence of his sensual appetite, or abandon the idea of permanent exemption from his blennorrhagic trouble. Accordingly, he abstained from sexual intercourse; and the urethral affection, which had now for some weeks been a mere gleet, received a final *coup-de-grace* through the efficient agency of cantharidal collodion, which was twice applied to the offending organ. The patient assures me that, since his recovery, he has kept out of harm's way.

CASE IV. — *Acute gonorrhœa — suspension of discharge — cure — spermatorrhœa supervening — cure.*

December 26, 1855. L. S., aged eighteen years. Tall, slender frame, constitution delicate. By day, doing business in the city; at night, is ten miles in the country by railroad. Blennorrhagia eight days, profuse, yellow, puriform; severe scalding in micturition; painful erections and chordee. Compound cubebs powder, six drachms a day. Had taken a saline cathartic on the previous day. Patient remained quietly in the country for twelve days, when the blennorrhagia ceased, and he went to his place of business, where his services were urgently demanded. In five days the blennorrhagia returned. To arrest it, balsam of copaiba mixture was prescribed. In ten days the running again ceased, excepting a drop of thin, transparent mucus in the morning. For this, injections were employed as in Case II., together with cantharidal collodion to the integument of the penis. In twelve days the abnormal secretion made its final disappearance.

In just five weeks from the time the patient reported that the gleet had vanished, he called to be cured of spermatorrhœa. He stated that, a few days previous to the disappearance of the gleet, he began to be troubled with undue sexual emotions and involuntary nocturnal emissions. The latter had gradually increased in frequency, until they numbered ten or twelve in a week, and were coincident with erotic dreams. He was pallid, nervous, dejected; had a poor appetite; strength reduced, and bowels constipated. He was directed to use a generous diet, to bathe in cold water daily, to take free exercise in the open air,

and, as a tonic and aperient, equal parts of the wine of iron and syrup of senna to the amount of two or three drachms each day; at bedtime, a drachm of lupulin. These directions were all faithfully observed. The spermatorrhœa gradually subsided, and at the end of eight weeks gave no further trouble.

Abnormal sexual excitement and involuntary seminal emissions are frequently met with in chronic blennorrhagia. In such cases, the engorgement and irritation of the prostate gland, and deeper portions of the urethra, are propagated to the vesiculæ seminales, and hence the disturbance of their physiological function.

Every physician and surgeon is naturally more deeply impressed with what he sees and witnesses within the range of his own field of professional service than with what transpires within the limits of another man's practice. But the history of blennorrhagia, as known and treated by various practitioners, shows that it is curable through the instrumentality of a great diversity of remedies, no one of which is entitled to the character of an absolute and infallible specific. The disease differs greatly in the severity of its symptoms as developed in patients of different constitutions and different habits; and although its leading features are sufficiently marked to enable the practitioner to recognize it, yet he will find it a futile attempt if he undertake to employ a uniform mode for all cases. But, although the malady yields to no specifics as such, there is a great choice of remedies, just as we find in other complaints, in the management of which our means are applied according to the daily assemblage of symptoms. In attempting the cure of blennorrhagia, some surgeons employ the balsam of copaiba almost exclusively; some trust to cubebs as being best adapted to the greatest number of cases; some rely on a combination of copaiba and cubebs, in the belief that the virtues of the two remedies are best exerted when united; some resort to antiphlogistics, some to injections, with no other treatment; and others, still, bring into service nearly all the above measures in the same case, and, in addition to this, are sometimes obliged to vesicate the penis or perineal integument. All these plans of treatment succeed; all occasionally fail.

Dr. Charles A. Davis, the intelligent and efficient surgeon of the United States Marine Hospital at Chelsea, near Boston,

informs me that, during the last three years, he has treated about eighteen hundred cases of gonorrhœa at that institution, and that he has given various modes of treatment a fair trial, including every new remedy that has come to his notice. In the abortive treatment he has employed the strong solution of nitrate of silver, keeping the patient confined to his bed, and restricting him to a low diet, for a few days. If the period has passed for resorting to the abortive treatment, Dr. Davis orders,—

℞. Copaibæ, ...
Mucilaginis Acaciæ, āā, ... ʒiv.
Aquæ Camphoræ, ... ʒxvj. M.

Dose. — Half an ounce three times a day.

In chronic blennorrhagia and in gleet he very generally applies the cantharidal collodion, which in almost every instance brings satisfactory results. In private practice it would of course be equally successful, provided it were convenient to use it; but there are too many obstacles, too many contingencies, that will in many cases arise in the way of its employment. The objections lie chiefly with the patient himself. He dreads the pain; nor will he submit to the inconvenience and restraint which its application imposes.

Injections in blennorrhagia. — Although the idea of curing blennorrhagia, in its initial stage, in conformity with the old adage, "*cito, tute, et jucunde*," by strong injections of nitrate of silver, is scarcely tenable so far as relates to private practice, yet, in many cases, injections of some sort may be advantageously resorted to, and without risk to the patient. As adjuncts to other agents in the latter stages of the disease, when the active inflammation has materially diminished, and the individual no longer complains of urethral pains, nor of ardor urinæ, then injections of a mild, astringent, or sedative character may be employed. They are, generally speaking, most opportune when anti-blennorrhagic remedies have had a fair trial, and have failed to arrest the discharge. So long as the case is doing well under the use of balsam of copaiba, cubebs, cantharides, or other constitutional treatment, we need not feel that there is any occasion to use injections. To let well enough alone is always good policy. Local remedies sometimes disturb

the favorable action that is being produced by the agents already at work. But, if injections have been determined upon, the surgeon should give directions as to the best manner of employing the syringe, so that its contents may pass along the whole length of the urethral canal; for it is not certain, in any given instance, at what point or portion the disease may exist. The injection should be allowed to remain in contact with the canal for several minutes, — or until it creates a trifling degree of pain, — and its subsequent action should be carefully noted. If it increase the discharge, it should be discontinued. Ice-cold water may safely be thrown into the urethra several times a day during any stage of gonorrhœa. This can do no harm; on the contrary, it often exerts a very favorable influence. In nearly all cases I advise the use of it many times in the twenty-four hours, provided the patient is so situated that he can employ the syringe in a proper manner. If there be much irritation in the urethra, an injection of cold water, with three or four grains of aqueous extract of opium to the ounce, may be usefully employed. It should be carefully filtered.

During the last few years, Ricord has been gradually relinquishing the employment of caustic injections in the treatment of gonorrhœa, because every now and then instances occur in which the pain is very severe, the artificial inflammation runs high; and then, instead of a cure being obtained, the disease relapses into a chronic state, which resists all means of cure: in addition to this, the patient requires a great deal of watching, — more than a medical man in full practice is able to devote to him. Ricord now prefers the capsules of copaiba, and the following injection: —

℞. Zinci Sulphatis, ...
Plumbi Acetatis, āā, ... gr. xv.
Tincturæ Catechu, ...
" Opii, āā, ... ʒj.
Aquæ Rosarum, ... ʒvj. M.

Injection.

Acton states that his experience fully sustains that of Ricord; and that it is only in old cases of gleet, in spermatorrhœa, and in chronic affections of the bladder, that he employs the nitrate of silver injections.*

* Vide London Lancet, December, 1854, page 459.

It is often advisable to vary the character of the injections; I propose, therefore, in the subjoined note, to present a few formulæ in addition to those already inserted in these pages.*

I have thus submitted in brief detail, sundry methods of procedure for the cure of blennorrhagia. The multiplicity of

* ℞. Plumbi Acetatis, ... gr. ij ad iij.
Decoctionis Papaveris, ... ʒ iij. M.

The above is to be used at night, and allowed to penetrate without restraint as far as the ordinary impulsion of the syringe will convey it. In four or five days it may be used more frequently. Used at the London Lock Hospital. — *Henry J. Johnson.*

℞. Vini Rubri, ... ʒ vj.
Acidi Tannici, ... gr. xviij. M.

For the male urethra. For the vagina the quantity of tannin may be doubled, or still further increased. — *Langston Parker.*

℞. Solutionis Sodæ Chloridi, ... ʒ iij.
Aquæ, ... ʒ viij. M.

This preparation is often valuable in chronic vaginal or urethral gonorrhœa or gleet; and may be employed every hour or two during the day.

℞. Ferri Potassio Tartratis, ... ʒ j.
Aquæ, ... ʒ viij. M.

Injection. — For chronic blennorrhagia or gleet in either sex. May be used *ad libitum.*

℞. Ferri Iodidi, ... gr. xvj.
Aquæ Rosarum, ... ʒ vj. M.

In gonorrhœa or gleet, to be used several times a day. — *Prof. Dunglison.*

℞. Zinci Sulphatis, ...
Acidi Tannici, āā, ... gr. ij.
Aquæ, ... ʒ ij.

M. Injection. — To be used repeatedly during the day. — *Acton.*

The tannate of zinc has been employed in the proportion of one part to one hundred of water, as an injection in chronic blennorrhagia with favorable results.

M. Skey, surgeon to St. Bartholomew's Hospital, considers that the most effectual method of curing gonorrhœa and gleet, is by the use of mild injections, and the internal use of tincture of iron or ferro-citrate of quinine, *ad libitum.* The following is a convenient mode of prescribing the citrate: —

℞. Ferri et Quiniæ Citratis, ... ʒ ss.
Syrupi Aurantii, ...
Aquæ Fontanæ, āā, ... ʒ ij. M.

Dose. — ʒ j. three times a day in half a gill of cold water.

remedies, constitutional and topical, shows plainly enough, how totally ineffectual all ordinary measures sometimes prove. Although the affection is purely local, and would seem, theoretically, to admit of easy cure, yet the testimony of experience tells a different story; and we learn from it, that the disease is now and then as obstinate as it is disgusting.

PAINFUL ERECTIONS.

These complications of blennorrhagia sometimes occur, to the great torment of the patient, especially during the latter part of the night; and their immediate removal, and the prevention of their recurrence, should engage the attention of the surgeon. The erections are involuntary. I once knew a married man — a carriage painter — who had gonorrhœa, and whose virile organ continued in a state of priapism for nearly twenty-four successive hours. He could not make known his condition to any one, without exposing himself in a way that would have raised a moral hurricane in the domestic circle, and he continued to suffer, until a brisk cathartic, which he took, brought relief.

In chordee, the penis, when in a state of tension, is curved downwards or to one side. The erections are much more troublesome during the second stage of blennorrhagia, than at any other period. Now and then, in nervous men, they persist after the inflammatory symptoms have disappeared. In the generality of cases, the abnormal condition takes place when the inflammatory action extends to the reticular tissue of the urethra, and consequent infiltration of plastic lymph into its cells occurs, whereby the canal loses its uniform elasticity, and cannot expand in due proportion with the distension of the erectile apparatus.

Treatment. — In some cases, antiphlogistics and sedatives are required for the removal of this phenomenon. Leeches, and afterwards, cold water to the perinæum are useful. The latter application may be continued for several hours. It constitutes one of the most efficient local measures that can be employed. The patient should lie on a hard mattress, with a light covering over him.

LUPULIN. — The sedative and anti-blennorrhagic influence of this remedy depends upon a resinous ethero-oily principle; while the bitter element yields a real tonic. I have employed lupulin in doses varying from one scruple to one drachm. It has an advantage over opium in not producing constipation; nor does it create any gastric disturbance; and, on this account, it is preferable to camphor. A few months since, I had a young man under treatment, for whom I prescribed the lupulin, of which he could not take over a scruple in twenty-four hours without experiencing an uncomfortable, stupid feeling for several hours; but the erethisms, for which it was given, were entirely quieted. This patient was nervous and dyspeptic. The stomach tolerated the medicine perfectly well. During the past few years, favorable reports, in regard to the remedy, have been communicated to the journals by practitioners of high standing in this country and Europe; and I feel justified in stating that the more I prescribe it, the greater is my confidence in its ability to control painful erections in gonorrhœal patients. A late number of the *Gazette des Hôpitaux* contains a formula for a pill consisting of belladonna, camphor, and lupulin, which is reputed to prevent at once the occurrence of painful erections, and invariably to allay the morbid erectile tendency of the genital organs. The formula is: —

℞. Extracti Belladonnæ, ... ℈ j.
Lupulinæ Recentis, ...
Pulveris Camphoræ, āā, ... ʒ j.
M. ft. pil. No. xlviij. DOSE. — One to four pills at night.

CAMPHOR. — In some patients camphor destroys or greatly interferes with the appetite, and for this reason it can be prescribed only for a short time in any considerable quantities; but as regards its efficacy in relieving the complications under consideration, all surgeons agree; and it will probably continue to maintain a claim equal to that of any other drug employed for the relief of the same morbid conditions. If the gum be selected, it may be formed into pills with the extract of lettuce, according to the annexed formula: —

℞. Pulveris Camphoræ, ...
Extracti Lactucæ, āā, ... ℈ ij.
M. ft. pil. No. xx. DOSE. — One to six pills at night.

For *chordee*, common spirits of camphor, in sweetened milk, surpasses all other remedies. A teaspoonful of spirit may be taken by the patient on going to bed; and every time he wakes with the chordee, let him at once rise and repeat the dose: Sometimes the attack can be relieved instantly by making forcible downward pressure upon the organ. In some cases, the chordee becomes chronic and remains for a long period after the blennorrhagia has disappeared, and the penis acquires the hardness of cartilage or bone. This peculiar condition, as already observed, is due to the presence of plastic matter in the parts, and is a source of constant discomfort and alarm to the individual. The state of things here mentioned is of rare occurrence as a consequence of urethritis, and yet it is a result of this complaint; and the fact is worthy of remembrance in a diagnostic point of view; for the patient is apt to fancy that the disease is a scirrhous or cancerous affection of the organ, and he lives in fear as to its ultimate and dreadful termination — a frame of mind which the surgeon will have it in his power to relieve by a few explanatory words. The internal administration of the iodide of potassium in compound decoction of sarsaparilla, and the local employment of the unguentum hydrargyri camphoratum will constitute the most suitable treatment for the removal of the singular accident in question. The iodide-of-lead ointment will also be worthy of a trial; likewise, the application of small blisters and of the compound tincture of iodine. The deformity never interferes with the general health, although it does with the physiological functions of the member; and in some instances it remains incurable.

URETHRAL HÆMORRHAGE.

In certain cases of acute blennorrhagia, attended with frequent priapism and severe spasmodic chordee, bleeding takes place from the vascular apparatus of the urethral canal. The quantity of blood thus discharged is usually small, and seldom gives occasion for the services of the surgeon to arrest it. In fact, the occurrence of slight hæmorrhage is a fortunate circumstance, as it is generally followed by a decrease of the inflammatory symptoms. If the discharge be profuse, means for repressing it should be adopted; and of these, the application of

ice-cold water to the perinæum is one of the best; — cold water may likewise be injected into the urethra. Or, what is better, and more conveniently done, pressure should be made with the thumb and finger upon the urethra deep in the perinæum. If the hæmorrhage be not arrested, draw the fingers gradually forward in the track of the urethra. The precise seat of the lesion, from whence the blood flows, will soon be detected; and it will usually be found at the point of the urethra opposite the symphysis pubis. A compress should be placed upon the part, and secured by a roller around the loins and thighs. In three cases of profuse urethral hæmorrhage, which I have met with, the accident occurred when the organ was in its greatest tension, attended, in two instances, with chordee also. In one case, the patient lived at some distance from me. According to his own story, he bled a quart. He applied cloths dipped in cold water to the genitals; but the bleeding, which took place in the dead of night, continued several hours. In the second individual, the laceration of the vessels occasioned a rapid flow of blood, which was arrested with ice-water and pressure upon the perinæum. The third case occurred lately, and was on this wise. A young dandy, who had blennorrhagia "in floribus," took a fancy to have a ride in a cab on a bright summer's evening with a girl of the town. During the ride the girl got into his lap; and while the parties were busily engaged in mutual embraces, a vessel sprung a leak and bled profusely. The young man became alarmed. The cab drove up to the office of a physician. The patient alighted, and the cab went ahead with the female passenger. The physician, at whose door the bleeding lover was dropped, not being in, I was called. The youngster had on a pair of white trowsers. The blood was trickling down his legs. He exposed the genitals, and related the circumstances amid which the hæmorrhage took place. The bleeding was staunched with cold applications and pressure, the patient lying on the floor for about an hour afterwards.

CHAPTER III.

GLEET.

THIS is the blennorrhœa *chronica* of Dr. Good; blennorrhœa *luodes* being, as we have seen, the name he gives to the clap or gonorrhœa. Gleet is a frequent sequel of an obstinate blennorrhagia unsuccessfully treated or wholly neglected. The discharge is slight. Sometimes only a drop or two is noticed about the meatus urethræ, in the morning. The orifice is smeared with a ropy, tenacious, serous or mucous fluid, partially dried perhaps, upon the lips, and slightly impeding the free exit of the stream of urine, when it first arrives at this part. Some patients have an oozing of matter, amounting to five or six drops in the twenty-four hours. Sometimes several days will intervene and no discharge be noticed; but if the patient indulge in any imprudence in diet, severe exercise, sexual intercourse, or anything which tends to excite the organs, the gleet will very probably reappear. The most common seat of blennorrhœa is in the vicinity of the membranous or prostatic portion of the urethra; the lesion, however, is sometimes situated in, or near, the fossa navicularis, as in acute urethritis. It is generally easy to determine when it is seated at the latter point; for if it be, moderate squeezing of the glans penis will force the matter out at the orifice of the urethra, whereas this cannot be so readily done if the discharge proceeds from a portion of the canal farther back. Sometimes the locality may be ascertained by pressing the integument along the urethra. The patient will complain of being hurt when the diseased spot is reached.

Occasionally, a preternatural redness and turgescence of the lips of the urethra remain after the discharge has ceased. This deviation from the healthy appearance is, of itself, an affair of little moment. It is, however, indicative of a more profound

abnormal condition, which may still be lurking in the mucous lining of the canal, in Cowper's glands, or in the prostate, either or all of which parts may have been, at some period of the disease, concerned in the production of the morbid secretion, and may still be the seat of a subacute inflammation; and so long as this continues, the patient is liable to a relapse from the most trivial excess or imprudence. He should, therefore, persevere in the treatment for some ten or fifteen days after the meatus has assumed its normal condition. Nor should he be allowed to indulge in the venereal act, until several weeks after the discharge has stopped. Cases are on record in which the secretion has been absent for a whole month, and then has been reproduced by sexual intercourse with a perfectly healthy woman. Such facts are entitled to remembrance. They should make the surgeon cautious what answer he gives to the inquiry which is frequently made by the patient, "When may I venture to marry?" The answer in some cases must be given under circumstances involving no small responsibility.

Some men, with an old gleet, suffer great mental distress in consequence of its presence, although it does not interfere with their physical health. A few months since, an intelligent but nervous man, from a neighboring village, was sent to me by his physician to be treated for gleet. It had existed about one year. The discharge consisted of a drop or two of mucus in the morning. No stricture or other irregularity of the urethral canal was found. The catheter slipped into the bladder at once; virility was unimpaired. The patient had been reading an old medical book which fell in his way, and he became greatly alarmed, apprehending that the venereal complaint, in some form, might break out upon him at any moment unless his gleet were cured. A matter of business called him to Georgia; but he dared not undertake the journey while his genitals were in such a critical state. He was put upon the use of the following: —

℞. Tincturæ Cantharidis, ...
Olei Terebinthinæ, āā, ... ℥ j.
Mucilaginis Acaciæ, ... ℥ ij. M.

Dose. — One teaspoonful three times a day.

The following injection was also prescribed: —

℞. Acidi Tannici, ... ℈ j.
Plumbi Acetatis, ... gr. viij.
Aquæ Fontanæ, ... ʒ viij. M.

A syringeful to be injected three or four times in the twenty-four hours.

The whole of the perineal integument was likewise made perfectly raw with the compound tincture of iodine, and the patient was confined to his room. The gleet ceased on the sixth day, but the remedies were continued for two weeks longer in diminished force. The patient was encouraged to start on his journey. On reaching Philadelphia he fancied that he detected a relapse of his gleet, and forthwith returned to me. Nothing would appease him but a renewal of treatment, although I assured him there was no call for it. Meantime, as no gleet appeared, his mind became tranquil, and he was convinced that he had no occasion to return as he did from Philadelphia. He once more commenced his Southern trip, which he completed successfully.

I have examined with the microscope numerous specimens of true gleety matter. In most instances it consists of large, delicate, well-defined epithelial cells and free nuclei, which remain entire after the other portions of the morbid product are decomposed and broken up into mere shreds and amorphous granules. In other samples I have found pus-globules, although seldom in abundance. If the individual indulge in any excess, and thus augment the local inflammatory action, a corresponding increase of pus-globules can be detected.

It is not easy to say, pathologically, at what precise point in the progress of urethritis the inflammatory gonorrhœa ceases, and the gleet commences. Here we encounter a difficulty analogous to that which presents itself when we speak of the termination of an active inflammation in any other organ or membrane, and the commencement of a supervening subacute inflammation. We have no means of running a line of distinction that shall be mathematically correct; but for all practical purposes required in therapeutic surgery, our resources are sufficiently ample, and, for the most part, ultimately successful; although it must be confessed that they are occasionally wholly inefficient.

TREATMENT OF GLEET. — Gleet has been cured by a great contrariety of treatment. There is no one plan that can claim absolute supremacy over all others in all cases. The remedies appropriate for one constitution, may be prejudicial to another; and what may be suitable for a patient to-day, may be injurious to him to-morrow. Whatever course of treatment the surgeon decides to take, let him bear in mind that he is dealing with a urethritis — a mere modification of the same malady that was treated under the name of gonorrhœa or blennorrhagia. This is true, certainly, of the great majority of cases which we call gleet. In some few instances, the discharge is kept alive by something more than a subacute inflammation of the urethra. There may be hypertrophy of the prostate; or inflammation of the vesiculæ seminales, — or inflammation or irritation of the neck of the bladder; or stricture in some portion of the urethra. All these contingences will suggest themselves to the consideration of the scientific practitioner; nor will he leave unemployed any available means of arriving at a correct opinion in regard to these possible conditions before commencing the treatment of a case. An important point to be determined at this juncture, relates to the existence of stricture. The catheter or bougie will clear up all doubts upon this question. Patients very often apply to a surgeon to be cured of stricture when they have none. They have a gleet, — the sequence of a gonorrhœa that has been mismanaged by some knavish quack, who has neither medical skill nor moral principle. He tells the man that his gleet is dependent on a dangerous stricture, which must be operated upon with the catheter or bougie every few days, or his urethra will close up so that he cannot make water; and he promises to cure the poor fellow for so much — usually an enormous sum; whereas, upon proper examination of the part, no stricture can be found.*

The urethral lacunæ are much more developed in some persons than in others; and when the walls of these little recesses are in a state of congestion or hypertrophy, from pre-

* "There is a class of scoundrels who live, not by curing strictures, but inventing them. Let an unhappy wretch fall into their hands, and if his urethra will admit a poker, they will still persuade him he is strictured. The duration of his case will be in the compound ratio of the extent of his credulity, and the fulness of his pocket." — *Henry J. Johnson.*

vious inflammation, they will naturally oppose the free passage of the instrument along the canal; and unless the operator be somewhat familiar with the bougie, he may mistake this opposition for stricture. Long standing blennorrhagia, in which the symptoms have been very severe, may produce the change in the lacunæ here alluded to; and the obstacle, which, when in this state, they must offer to the extremity of a bougie, may be misinterpreted; and if the manipulator were to persist in his efforts to urge the instrument farther in, he might easily rend the parts — make a false passage — manufacture a pouch — or even create a stricture.

Blisters in Gleet. — Of all local remedies, these stand at the head of the list for the cure of all cases not dependent on stricture or otherwise complicated. They may be applied along the whole length of the penis, except two or three lines towards the preputial orifice. As soon as vesication has taken place, the organ may be lubricated with equal parts of lime water and olive oil, or the benzoated zinc ointment, and wrapped in a linen rag. Of late I have used cantharidal collodion in preference to blistering cerate. The collodion may be applied by means of a camel's-hair pencil. After the evaporation of the ether, which takes place in a few seconds, the parts may be protected with linen rag. The vesicating substance should be applied at bed-time. If the surgeon propose to blister the perineal integument, he will find the collodion much more convenient than any other substance. It is better adapted to the uneven surface than plaster, does not stain the linen like tincture of iodine, and acts more powerfully and rapidly than the latter.*

I have often cured a gleet with one application of the medicated collodion. The discharge does not usually disappear until the fifth or sixth day after vesication has been produced; sometimes eight or ten days will intervene before it entirely

* "If only pure gleet, sometimes mucous, sometimes purulent, be met with, it will, in almost every case, yield to a blister; very rarely does it require a second. Blistering is, I may now safely say, the safest, quickest, and most efficacious remedy of all that have ever been proposed. Those who have had numbers of these cases under their hands, and felt the constant disappointment which the use of every other remedy brings with it, will soon appreciate its value. I have heard it condemned as a violent, painful, unpleasant remedy. I deny it." — *Milton in Med. Times and Gazette.*

ceases. In a few instances a second application has been required, but I have rarely found occasion for a third. Patients generally prefer to submit to the operation on Saturday evening. During the following day they are obliged to remain at rest; sometimes for a longer period.

There is still another region upon which large blisters can be applied in cases of gonorrhœa and gleet, and that is high up on the inner surface of the thighs. They should be about three inches by three, and be secured by a margin of adhesive plaster, and, as a matter of convenience, should be put on when the patient goes to bed at night, and be allowed to remain on until next morning. A blister on each thigh may be applied at the same time. The vesicated surfaces may be dressed with cold cream, the benzoated zinc ointment, or lint soaked in castor oil. Very likely the urethral discharge may be increased for twenty-four or forty-eight hours, and the patient will experience an inconvenient scalding on micturition, and it will be well for him to be provided with an antidote as in the following prescription: —

℞. Misturæ Camphoræ, ... ℥ ij.
Spiritûs Ætheris Nitrici, ... ℥ j.
M. Mucilaginis Acaciæ, ... ℥ ss.

Dose. — Two teaspoonfuls every hour until four or five doses are taken, if necessary. A warm bath also, if the symptoms are urgent, of which there is very little probability.

The final and speedy result of thus blistering the thighs, has, in some cases, proved entirely satisfactory. I have tried them and have succeeded; — I have tried them and have failed.

Injections in Gleet. — The number of these, as in gonorrhœa, is well nigh legion. Some of them prove important allies to other remedial agencies; some are nearly inert; and some, absolutely mischievous. Injections should be weak at first, and always used cautiously. It is best to commence with two or three repetitions for three or four days, and let the patient report progress. If no ill results, the repetitions may be more frequent. The urethral canal should be kept as free as possible from all gleety secretion. Hence the benefit of weak injections often repeated, rather than to use more potent ones, which must

be employed less frequently, and even then may make the last state of the patient worse than the first. Frequent injections of ice-water are usually productive of beneficial effects.

In refractory cases, where the deep portions of the canal are involved, advantage is sometimes realized from inserting into the urethra, to the depth of about four inches, a catheter having perforations in the sides, and pressing a drachm or two of the injection into the extremity of the catheter, by means of a small syringe. One of the best, as well as one of the cleanliest injections, is nitric acid, diluted thus: —

℞. Acidi Nitrici, ... gtt. xx.
Aquæ Fontanæ, ... ℥ viij. M.

Of this, a drachm may be injected every hour, or even oftener, if the patient choose. The caution, given above, need not be observed in regard to this preparation. Being quite weak, no injury would ensue were it to remain in constant contact with the lining membrane of the urethra. Its action is that of a tonic and astringent to the mucous tissue. Another injection, to which I am partial, is the French chloride of soda, where I am sure of procuring the genuine manufacture. I employ it, diluted in the proportion of one part of the solution to sixteen parts of rain water. It may be repeated *ad libitum*. The oxymuriate of mercury, — one grain to eight ounces of rose water, makes a valuable injection in many cases. The nitrate of strychnia has been employed with beneficial effects as an injection in gleet, not depending upon stricture, accompanied or not, by disease of the prostate gland. Nux vomica may be given internally at the same time.

℞. Strychniæ, ... gr. iv.
Acidi Nitrici, ... gtt. viij.
Aquæ, ... ℥ iv. M.

Inject one drachm thrice daily, after micturition.

℞. Extracti Nucis Vomicæ, ... gr. xij.
Quinæ Sulphatis, ...
Extracti Hyoscyami, ana, ... gr. xxiv.

M. In pill. No. xxiv. divid. Two pills to be taken, one hour before each meal.*

* Vide Amer. Journal Medical Sciences, April, 1850, p. 342.

The chloride of zinc makes a valuable injection in some cases of gleet and also in gonorrhœa. The usual formula which I have employed is:

℞. Zinci Chloridi, ... grs. vj.
Aquæ Rosarum, ... ℥ vj.

M. To be used twice in the twenty-four hours for a few days, after which more frequently, if no unpleasant effect is complained of by the patient.

The acid nitrate of mercury (Hydrargyri Pernitratis Liquor), is the only remaining therapeutic agent which I shall present in this connection to the attention of the practitioner. For several years it has been employed by Mr. Childs, Surgeon to the Metropolitan Free Hospital, London, in cases of urethritis, and, as he states, with the most gratifying success. The strength of the injection employed is in the proportion of

℞. Liquoris Hydrargyri Pernitratis, ... gtt. iij.
Aquæ Destillatæ, ... ℥ viij. M.

Injection. — To be used once, twice, or thrice daily, as the patient can conveniently bear.

It is hardly worth while to continue an injection if it do not exert the desired action in the course of one week. The mucous membrane requires some other kind of stimulant.

The Bougie. — Few cases, comparatively, present themselves in private practice, under circumstances demanding the use of this instrument. Now that confidence in the employment of blisters has recently been revived by Mr. Milton, who holds that all cases of gleet, not complicated with stricture, may be cured through the combined agency of repeated vesication of the penis and injections into the urethra, it is highly probable that the bougie will hereafter be in less frequent requisition than it has been hitherto. If a patient have stricture, the bougie will be needed. It may likewise be of service when a gleet is protracted for a very long time in consequence of an irritable state of the neck of the bladder. There is still another class of patients, who may be benefited by the same mechanical means, when all other agencies have been exhausted; for such cases, it is to be presumed, will still continue to occur, to the great

annoyance of the most skilful surgeon; and they will resist his best endeavors, until he avails himself of the bougie. Such cases, however, will, without doubt, be extremely rare. They include those individuals who have never had stricture; who have no abnormal vesical irritability; no chordee; and little or no tenderness along the perineal region; their condition has remained nearly the same for several months; the parts endure without complaint, comparatively rude handling, and seem almost callous to the ordinary influence of injections. And yet the judicious use of the simple bougie may restore the urethra to a sound condition, and put an end to the morbid secretion.

In regard to the use of the bougie, surgeons prescribe somewhat different directions. The instrument should be sufficiently voluminous to distend the urethra moderately, and nothing more. A bougie unmedicated should be introduced at first. It should extend some five or six inches into the canal, and be allowed to remain ten or fifteen minutes, according to the amount of irritation it creates. Its introduction, in some instances, may be repeated two or three times in a day; in other cases, only once in two or three days. Patients manifest every degree of susceptibility as to their power to endure the presence of the bougie, some being able to bear it nearly all the time; others cannot submit to its action, even for a few moments, a second time, so great is the suffering and inflammation which they experience. For persons in whom an incipient stricture is detected the bougie should be used every third or fourth day; and during the intervals an injection of tannic acid and sulphate of zinc — one grain of each to the ounce of rain water — should be employed.

The mucous membrane becomes thickened and softened in consequence of inflammation; the tender walls of the canal may be easily lacerated, and consequent hæmorrhage take place if the catheter or bougie be introduced in a rude or careless manner. Sir Astley Cooper mentions a case of the kind, to which he was summoned by the physician who was guilty of this malpractice. The flow of blood was checked by pressing a roller upon the perinæum. In a short time the hæmorrhage returned. The man had been lounging before the fire, with a foot on each side of the chimney-piece; and the warmth, coming thus in direct contact with the perinæum, brought on

a renewal of the bleeding. Sir Astley was again summoned, made an incision upon the part, and divided the artery of the bulb; this operation succeeded, and the hæmorrhage was permanently subdued.

In some cases of long-continued blennorrhagia, during which a variety of remedies have been applied directly to the urethra, it seems to lose its normal susceptibility; and if, after a few trials with the simple bougie, no effect is perceptible, the instrument may be coated with some slightly stimulating ointment, thus: —

℞. Unguenti Hydrargyri, ... 1 part.
Extracti Belladonnæ, ... 2 parts. M.

The bougie should be introduced cautiously; and, on withdrawing it, the surgeon should give it a slight rotatory movement, which will cause an equal distribution of the ointment to the whole surface of the canal. The employment of the instrument thus medicated gives considerable pain, and excites inflammation; and usually an increase of discharge is noticed for a few days, after which it frequently entirely ceases. But if this do not happen, a second trial with the instrument may be made in ten or twelve days from the first. An ointment of the nitrate of silver — one grain to the drachm — is sometimes efficacious when used as directed above for the mercurial unguent. The unguentum hydrargyri nitratis, in the proportion of one drachm to an ounce of pure olive-oil, is likewise a very suitable application under the circumstances here supposed. Sometimes the oil of turpentine answers a better purpose than any other substance for lubricating the bougie.

CONSTITUTIONAL TREATMENT OF GLEET.

Internal remedies alone seldom result in the cure of gleet. In nine cases out of ten the patient is doomed to meet with disappointment, after having run the gauntlet of all kinds and forms of specifics (so called) addressed to the stomach. Tonics are generally useful; they may be given with saline aperients or alterative mercurial medicines, or in combination with remedies reputed to exert a specific influence upon the genital system. Little will ever be gained by any process of starvation.

A plain but substantial diet should be allowed, of which lean meats should constitute a part. The subjoined formulæ are among the best that can be employed. If they fail to arrest the morbid secretion, it will hardly be worth while to waste time in experimenting with other preparations for internal exhibition. A far more hopeful procedure will be to resort to blistering, as already sufficiently recommended.

℞. Copaibæ, ... ℥ ss.
Tincturæ Cantharidis, ... ℥ ij.
" Ferri Sesquichloridi, ... ℥ j. M.

Dose. — Thirty drops three times a day in a gill of sweetened water.

℞. Tincturæ Cantharidis, ... ℥ j.
Quiniæ Sulphatis, ... ℥ ss.
Tincturæ Ferri Sesquichloridi, ... ℥ ij.
Acidi Sulphurici Diluti, ... ℥ ss.
Aquæ, ... ℥ viij. M.

Dose. — One ounce three times a day in an equal quantity of cold water.

When there is a thickened and uneven condition of the urethra, the annexed formula will be found appropriate: —

℞. Hydrargyri Biniodidi, ... gr. iij.
Potassii Iodidi, ... ℥ iss.
Spiritûs Rectificati, ... ℥ ss.
Syrupi Aurantii, ... ℥ iiss. M.

Dose. — Thirty drops three times a day.

Good results are often realized from the use of the iodide of potassium in conjunction with iodine. Such a combination, containing both tonic and alterative qualities, is especially indicated in the constitutional treatment of those who betray a scrofulous diathesis: —

℞. Potassii Iodidi, ... ℥ iij.
Iodinii, ... gr. j.
Aquæ Destillatæ, ... ℥ vij. M.

Dose. — One drachm three times a day.

Ferruginous preparations are likewise valuable for patients who have become pale, emaciated, nervous, and apathetic. The

potassio-tartrate of iron, or the citrate of iron, should be prescribed in pretty liberal quantities for several weeks. Mr. Dick states that a combination of the carbonate of iron with ergot has in his practice rendered good service. In two cases, where all other remedies had failed, the patients obtained the desired benefit from the following prescription: —

℞. Secalis Cornuti, ... ʒ iss.
Ferri Carbonatis, ... ʒ ij.
Pulveris Vanillæ, ...
" Camphoræ, āā, ... gr. vj.

Ft. pulv. Div. in partes No. xxiv. One powder morning and evening.

The oil of turpentine, as a constitutional remedy in obstinate cases of gonorrhœa and gleet, is entitled to favorable consideration. Its pungent and nauseous taste constitutes a serious objection to its employment, and hence it is rarely resorted to until other less disagreeable remedies have been tried and have failed. I have never ordered it in the acute form of abnormal urethral discharges, but in chronic cases, which have resisted other remedies, have prescribed it with advantage. It should be combined with an anodyne, and administered as an emulsion. The annexed formula is as convenient as any: —

℞. Morphiæ Sulphatis, ... gr. j.
Sacchari, ... ʒ iij.
Misturæ Camphoræ, ...
Mucilaginis Acaciæ, āā, ... ʒ ij.
Olei Terebinthinæ, ... ʒ ij. M.

Dose.—Two drachms three times a day.

Some patients, who have had urethritis for a long time, will complain, even after the morbid secretion has vanished, that they never know when they have done making water; that is, they will tell you that, after they think the process is finished and the bladder empty, they are troubled for a moment or two with a dripping from the meatus, which makes them very uncomfortable. They can neither expel the last few drops of urine, nor yet retain it. In these respects their condition is not unlike that of some very aged men. The introduction of the bougie or catheter once or twice every twenty-four hours, for a few days, will generally remove this trouble.

CHAPTER IV.

BALANITIS.

THE word *balanitis*, as employed by syphilographers of the present day, signifies inflammation of the surface of the glans penis, the mucous membrane of the prepuce, the glandulæ odoriferæ, and the follicles that surround the corona. The disease thus located, is also called balano-preputial blennorrhagia; bastard *chaude-pisse balanite* by the French; external blennorrhagia; spurious or false gonorrhœa. The inflammation is attended with more or less muco-purulent discharge, with or without superficial excoriations. If the disease be confined to the *prepuce*, it is called *posthitis*. But, as in most cases, all the tissues just named are involved, I shall employ the term *balanitis* as being sufficiently suggestive of the seat of the complaint. The liability of men to this disorder, depends in some degree upon the amount of preputial integument, with which the parts are naturally endowed; and in this particular very great differences are found. It is somewhat amusing to compare the opinions expressed by different writers in regard to this appendage. One says, "It has been a question with some philosophers of the Monboddo school, whether the prepuce is not a piece of supererogation. It may have its uses in a state of nature, where it may defend the sensitive glans, and serve the purpose of 'sheath' in animals. But we are not likely to return to fig leaves, and I think I may take it upon myself to affirm, that at the present day and with our customs, the less we have of it the better."* The prepuce, says Ricord, "is an appendix to the genital organs, the use and object of which I could never divine; in place of being of use, it leads to a great deal of inconvenience, and the Jews have done well in circumcising their children, as it renders them free from one of the ills of humanity. The

* Henry J. Johnson.

prepuce is a superficial piece of skin and mucous membrane, which serves no other purpose than acting as reservoir for the collection of dirt, particularly when individuals are inattentive to cleanliness." In some men the prepuce is of remarkable brevity — hardly sufficient to conceal any portion of the glans, which, with them, always remains in nearly the same condition as if circumcision had been performed.

The glandulæ odoriferæ, with their short excretory ducts, situated behind the glans, are disseminated much more plentifully in some men than in others; varying, numerically, from ten to one hundred; and while they are designed by nature to perform an important emunctory function analogous to that of the sudoriferous apparatus of the skin, they are at the same time subservient to the protection and healthy condition of the parts in the immediate neighborhood, upon the surface of which they constantly pour out an oily, lubricating fluid. But, if this oily material be allowed to accumulate, and to become partially concrete, it may, and frequently does, prove a source of irritation and inflammation. It is scarcely necessary to remark that this accumulation is much more rapid and difficult of prevention if the glans be invested by a preter-naturally elongated prepuce, than is the case where the glans is naked, or covered by a foreskin of normal length, and easy of retraction. I once knew a young medical student who had a redundancy of preputial membrane. After having been more or less annoyed for some weeks by a sensation of heat, itching, smarting, and pains about the head of the penis and the inner prepuce, he one morning noticed at the orifice of the latter, an opaque, semi-fluid substance, which proceeded, as he thought, from urethral gonorrhœa. He was, at the time, trying his skill as *interne du service*, or dresser to another young man, who, in addition to an acute blennorrhagia, had two or three ill-conditioned sores upon the prepuce. These received frequent attentions from the student, who, not fully indoctrinated into the laws of contagion, imagined that his own trouble was derived from this patient, as he had not been otherwise exposed. Upon retracting the prepuce, a large quantity of thick, sebaceous matter gushed out. This filth was removed with warm water, and the glans was found to be inflamed and denuded of its epithelium in several places, and aphthous patches here and there upon it. But

there was no urethral discharge. The student, at once satisfied as to the cause and source of his complaint, was not a little mortified. He listened to a few suggestions relative to personal cleanliness; and with the use of weak lead-water, found himself well at the end of a week. Instances like this occasionally present themselves; and when the patient is told that his difficulty is attributable to his own carelessness, he is apt to manifest surprise, mingled with shame and joy, at the discovery.

The existence of the prepuce is the principal predisposing cause of balanitis. Vidal, however, mentions that he once observed it in a man on whom he operated for phymosis by circumcision. The exciting causes of the complaint are numerous. Impure sexual congress is at the head of the list. The menstrual fluid, leucorrhœa, masturbation, and inattention to cleanliness, will occasionally produce it. If it be the result of intercourse with an infected female, the symptoms generally begin to show themselves in a day or two after exposure. The period of incubation is shorter than in cases of urethral blennorrhagia. The first warning of the trouble is a slight tingling or smarting sensation in the prepuce or glans. Anon, the prepuce becomes very tender and œdematous; and if it be drawn back upon the glans, the latter will exhibit inflammatory action more or less intense; and at a later period, if nothing be done to check the morbid process, a discharge of puriform fluid will take place from the glans, — near the frænum. There is scalding in micturition. If the trouble arise entirely from uncleanliness, it is more gradual in its development; the symptoms declaring themselves more and more manifestly as the acrid sebaceous product is allowed to accumulate. The muco-purulent matter, mingled with the natural secretion from the parts, is sometimes very abundant, and if the preputial orifice be narrow, and the escape of the fluid obstructed, will sometimes give rise to a sort of abscess; and it may be necessary to puncture the prepuce for the purpose of evacuating it. If phymosis complicate the balanitis, and the case be neglected, or injudiciously conducted, sloughing of the prepuce may take place, and the glans be seized with severe inflammation; and this morbid action may extend to the lymphatics of the penis and of the inguinal region.

Treatment of Balanitis. — Simple balanitis is quickly cured. The patient should be directed to draw back the prepuce so as entirely to expose the glans, as well as the mucous surface of the prepuce, which should be bathed in tepid water, and thoroughly cleansed of all sebaceous and puriform deposit. A fair view can now be had of the parts implicated. The surgeon will find slight abrasions and small patches of aphthæ. For the cure of these, one of the best topical applications is the following: —

℞ Liquoris Sodæ Chlorinatæ, ... ℥ ss.
Aquæ Fontanæ, ... ℥ vij. M.

Small bits of English lint to be saturated with the solution, and laid upon the glans; and the prepuce may then be brought forward. The penis should be covered with a light wet rag. The solution should be re-applied three or four times a day. In all ordinary cases this simple local medication will restore the parts to a healthy state in a very few days. An essential item is to keep the surfaces from coming in contact. In some cases a piece of soft, dry lint, snugly placed in the furrow behind the corona, will speedily remove all trouble; and proper attention to cleanliness will prevent its recurrence. If the erosion be considerable, and the puriform exudation copious, an astringent lotion may be appropriate, thus: —

℞ Zinci Sulphatis, ... gr. ij.
Acidi Tannici, ... gr. iv.
Glycerinæ, ... ʒ ij.
Aquæ Fontanæ, ... ℥ iv. M.

Apply with lint.

Simple lime-water frequently answers all the purposes, and effects a cure rapidly. In some cases I have tried the black wash, but its action has not proved salutary. It is too stimulating and on that account will rarely suit, but will rather aggravate, the morbid condition of the parts. The introduction of a crayon of nitrate of silver between the glans and the prepuce in severe cases, is a practice adopted by some surgeons. If the prepuce can be retracted, it would seem that such application is uncalled for; and if, on the contrary, there

be phymosis, the proper application of such a caustic is a matter of no easy performance. Besides it might very likely augment the inflammation.

PHYMOSIS. — If there be a close phymosis, so that no exposure of the glans can be effected, the whole mucous surface may be irrigated and thoroughly cleansed with tepid water many times in the course of the day, by means of a small syringe, which should be inserted as far up the preputial opening as possible. All extraneous deposit will thus very soon be expelled from its hiding place, and the inflammation and irritation, occasioned by the presence of this deposit, be rapidly diminished. Sometimes a few drops of Goulard's extract of lead can advantageously be added to the water used as an injection. The patient should live abstemiously and keep quiet.

After the symptoms have abated, the phymosis will sometimes yield, and a normal condition of the parts be secured by introducing a sponge-tent and gradually dilating the opening. All the measures above suggested sometimes prove merely palliative; they do not accomplish a radical cure, especially if a congenital or persistent phymosis exists. The balanitis becomes chronic; and the severity of the symptoms can be kept in abeyance only by the steady application of remedies for a very long time, unless the patient submit to a surgical operation for the cure of his phymosis. And this is by far the wisest course. The glans and prepuce are both inflamed and in a turgid state; and while this is the case, a mutual fretting of the parts will not only be kept up, but the injury will be cumulative. The œdematous prepuce cannot slacken and expand so as to make room for the glans; while the latter, in turn, has a tendency to swell more and more, and consequently to exert an increased pressure against the inner surface of the former. Under such circumstances the best mode of treatment is sufficiently plain to the judgment of the surgeon.

Division of the foreskin will be expedient; or, if this appendage be of extraordinary length, circumcision is to be preferred. In all ordinary cases, Sir Astley Cooper and Mr. Johnson advise that it be divided along the mesial line. The

latter surgeon says: "Division of the foreskin is very successful; and even when it is considerably elongated, the flaps of integument that depend on either side are ultimately so absorbed as to occasion little unsightliness, if any. I can scarcely dwell too earnestly on the advantages of this operation in cases of chronic balanitis." Sir Astley is equally in favor of this operation. The *method* of procedure is this: Insert a director into the preputial cavity, and let it slide along the dorsum of the glans until it has reached the point of reflection of the prepuce behind the corona. Move the point of the director about so as to be sure that it is where you want it, and that it has not entered the urethra. Then tilt up the point of the instrument. Next, run a sharp pointed bistoury along the groove of the director, and transfix the prepuce at the point where that instrument projects under the skin, and complete the division by cutting out and bringing the bistoury towards you. Some surgeons prefer to divide the prepuce at its lowest aspect by the side of the frænum, and assign as a reason that less deformity and unseemliness result, than is the case if the operation be performed on the superior aspect. When the prepuce is redundant in front of the glans, it may be drawn forward and cut with a knife or pair of scissors at a stroke. The mucous membrane may still be too tight; in which case it can be slit up at two or three points, and the ends of the flaps be secured by suture to the outer integument. There is still another, and a very neat operation for the relief of phymosis, even when most complete. The instrument employed is a pair of very delicate straight scissors, of which one of the blades is terminated by a little button, like a probe-pointed bistoury. The surgeon glides the point of this blade between the glans and the prepuce, while the sharp pointed blade is thrust between the inner membrane and external skin beyond the stricture. The mucous membrane now separates the two blades, and by closing these, this membrane is divided to the distance requisite to allow the prepuce to be drawn back, and thus relieve the phymosis. The edges of the wound spontaneously separate, and cicatrization follows. The operation leaves no deformity. It is called Cullerier's operation; and has been performed at the Pennsylvania Hospital

for many years with success.* Either of these operations may be resorted to with a view to give facilities for carrying out other measures of treatment. If no congenital or permanent phymosis existed before the disease, there will be less urgency for the operation; so likewise if chancres exist within the preputial cavity, it will be best not to perform the operation hastily, because the wounds might be inoculated with the chancrous matter. Should the symptoms be urgent, and there be danger of perforation of the prepuce, or of gangrene, then the operation will be demanded even at some risk of inoculating the wound. The danger here alluded to will be essentially diminished, if a strong solution of chloride of soda be applied to the chancre, or if nitric acid be employed as an escharotic. We have the authority of Mr. Cooper for dividing the prepuce, even when the worst kinds of ulcerations are present, either upon the glans or prepuce. He was accustomed to operate in this manner under such circumstances, and he assures us that he never saw, in a single instance, any ill consequences, — never knew any unfavorable ulcerations arise in the edges of the wound. On the contrary, the sloughing chancre or phagedænic ulceration is more likely to assume a healthy condition after the prepuce is divided; and all the parts proceed more favorably from the moment they are thus liberated, and nature is allowed to come to the rescue.

Circumcision. — In permanent or congenital phymosis, this operation may be required; and as it can, like all other surgical operations, be performed without pain, it is a procedure vastly less objectionable than it was formerly. Its results are more beneficial and complete than mere division of the prepuce. No deformity is left — a fact of no little concernment to the owner, — and, what is still more important to him is, he is in no danger of ever again being troubled with phymosis or paraphymosis, nor yet, probably, with balanitis. Several methods, which vary slightly, are practised by surgeons in the removal of the prepuce. Mr. Milton's plan is simple and is as good as any. It gives a neat appearance to the parts. His mode of procedure is — to slit up the skin and mucous membrane as far as the reflection of the latter, and then cut

* See Miller's Surgery, edited by Sargent, p. 587.

away the frænum as far as practicable. The constricted part, which is near the edge, is removed in a circle, and the bleeding being stopped, the skin and the mucous membrane are brought together by stitches, and covered with collodion.

PARAPHYMOSIS. — When there is great constriction and narrowing of the prepuce from inflammation, it frequently happens, that if this covering be pulled back behind the glans, it cannot again be brought forward to its normal position over this portion of the organ. It remains retracted, forming a band or ligature around the part just behind the corona, and occasioning strangulation analogous to that which takes place in intestinal hernia. This morbid condition of the penis is known in surgical language as *paraphymosis*.

Infiltration into the integument takes place rapidly on either side of the stricture; and the glans likewise is distended with blood, and painful. There seems to be no power in the system to control the local inflammatory process that has been awakened; and which, if not checked by judicious management, will very likely result in a partial or total destruction of some of the tissues. Nature's method of relief, which the medical attendant sometimes witnesses, consists in a sloughing of the integument, including a portion of the ligature that produces the constriction. The surgeon, however, if called seasonably, and if qualified for the duties of the occasion, will prevent this work of destruction. Let us consider the best means of doing this. A simply antiphlogistic treatment will sometimes bring immediate relief, as in the following

CASE. — *August* 13, 1856. — Was called early in the morning to see a stout, fat, full-blooded young man of dissipated habits. He was suffering from a paraphymosis, which had progressed gradually for five days. The parts were swollen, hot, livid, and painful. The patient had kept his bed most of the time for eight-and-forty hours. On the day previous to my visit, his bowels had been twice moved by a dose of castor oil. Tongue coated, thirst considerable, pulse full, — ninety per minute. Ordered a large dose of sulphate of magnesia, cooling drinks, warm water to genitals, and a warm bath in the evening; patient to remain immersed until he became faint.

Warm fomentations during night. Next morning preputial tumefaction and swelling of glans nearly gone, and paraphymosis much relieved, although the foreskin could not be brought over the glans; general condition of the patient improved. Continued hot fomentations, and in the evening repeated the warm bath. On the third day, the prepuce advanced over the glans sufficiently, and the parts soon regained their normal state.

If the patient be seen before the parts are "in extremis," the surgeon may attempt reduction of the constriction by pressing the glans steadily for fifteen or twenty minutes. If it be considerably diminished by the procedure, it may be pushed backward with the thumb and forefinger of one hand, while with the fingers of the other, an attempt is made to bring forward the prepuce. This manipulation is often successful. Should it fail, compression may be made by means of a delicate, narrow linen bandage, bound round the parts by commencing at the end of the penis and proceeding backwards, until a uniform pressure is brought to bear upon them. An old linen handkerchief furnishes a good material for the bandage. It should be torn into strips half an inch wide, and be applied so as to act equally on the parts. The degree of pressure should be as great as can be borne conveniently, and no more. Each successive turn of bandage should overlie the previous one by about one-half its width. If the bandage exert too much pressure, the patient can easily slacken it. This is a more sure and effectual plan than the taxis, and no mode of pressure can be more safe. M. Seutin, of Berlin, proposes the use of forceps, with spoon-like ends, which will embrace the glans, and produce compression more uniformly than can be done otherwise. The application of, and squeezing with, such a hard substance, upon the head of the penis, under such circumstances, will rarely be followed by successful results. If neither the taxis nor compression with bandages will overcome the difficulty, it is not at all probable that any instrumental force will answer any good purpose; and the surgeon will scarcely find his account in wasting any more time in this manner. He should proceed at once to divide the stricture with a sharp-pointed bistoury. For this purpose he should seek the deepest portions of integument. If adhesions exist between the skin and the shaft of the penis, in consequence of plastic infiltration, they may require to be

broken up; or free incisions may be made at different points, if necessary, in order to secure still greater relief.

Sometimes the prepuce remains irreducible for a few days after the stricture is relieved. Be this as it may, no rude manipulation should be practised for the purpose of bringing things to a natural condition. As soon as the inflammation has subsided, the proper co-aptation will take place, and the patient may be told quietly to await this result.

CHAPTER V.

ORCHITIS.

At the present day, practitioners make no delay in curing a gonorrhœa as soon as possible, by the most efficient means; for experience has abundantly demonstrated that the morbid condition, erroneously termed *hernia humoralis*, *orchitis*, and *swelled testicle*, is not occasioned by the ordinary use of balsam of copaiba or the powder of cubebs, which are regarded almost in the light of specifics in arresting the urethral discharge. Mr. Curling, than whom no higher authority on this subject can be cited, is accustomed to prescribe these remedies separately and conjointly, in all stages of blennorrhagia; and he has never found patients, thus treated, more liable to be attacked with orchitis than those who are treated differently. The same testimony may be gathered from the daily observations of medical men generally, who are constantly prescribing with impunity the remedial agents here spoken of.

In regard to the agency of injections, in giving rise to orchitis, it may be said that, if used with ordinary prudence, they do not produce it. If those of high strength be employed, and too frequently, they may induce this mischief. But enlargement of the testicle most commonly arises in those cases of gonorrhœa which pass into a chronic state, particularly when the prostatic portion of the urethra is affected. Cases of this sort occur generally between the fourth and fifth week from the commencement of the discharge. They may be manufactured by the introduction and unskilful manœuvering of the catheter, or be induced by violent exercise, excessive stimulation, or other imprudences, calculated to augment the existing inflammation of the urethra, and excite a morbid action in the vesiculæ seminales and vas deferens, until it reaches the epididymis; or it may be generated in virtue of what physiologists call the common law of sympathy, the intervening parts not

being involved in disease. The action of a similar law is seen in cases of hernia humoralis, occasionally developed in connection with mumps. While the urethra is the seat of a blennorrhagic discharge, the other portions of the genito-urinary apparatus are easily brought into a diseased state also; and among the accidents which attend this condition of the canal, orchitis is perhaps the most frequent.

The testicles are connected by continuity of tissue with the mucous lining of the urethra, through the medium of the vasa deferentia; and when inflammation has reached that part of the urethra in which these minute, intermediate canals terminate, it readily enough finds its way into them, and rapidly pursues its march, until it arrives at the convolutions of the epididymis, where its further progress is usually arrested. This appendix of the testis receives and retains the principal force of the morbid action, and thus serves as a wall of protection to the parenchyma of the gland itself. Sometimes the enemy overleaps this barrier, and attacks the testis proper. In all cases there is a general and sudden swelling, — a swelling of the testicle, as we term it, — but this enlargement is produced by the presence of lymph and serum within the tunica vaginalis. The epididymis is, after all, the chief seat of the disease in most instances. The old theory of metastasis, or the sudden translation of the inflammation from the urethra to the testicle, is not entitled to much favor. It is extremely questionable whether any thing of the kind ever takes place in gonorrhœal orchitis. The inflammation, in a majority of subjects, may be traced advancing along the vas deferens to the epididymis; or the morbid action may seize upon the latter without involving the vas deferens. This is what Ricord denominates sympathetic or vicarious inflammation. In nearly all cases of orchitis, the pain and urethral discharge diminish very considerably, especially during the early stage of the testicular affection.

When orchitis attacks young men who are troubled with blennorrhagia, the morbid action is more apt to reach the body or glandular structure of the testis, than it is in older men. These cases Vidal designates as *parenchymatous orchitis*. The swelling is comparatively moderate; there is no serious effusion into the cavity of the tunica vaginalis, and the gland is drawn

upward towards the abdomen. This variety is attended with great pain; and the symptoms are all much more severe and dangerous than those which accompany other forms of orchitis. The variety of orchitis, in which the vaginal tunic becomes rapidly distended with the exudation, is also very painful; where the inflammation preponderates in the epididymis the suffering is much less.

In thirteen hundred and forty-two cases reported by Professor Sigmund, the seat of the disease is thus distinguished: the epididymis alone, sixty-one; the epididymis and cord, one hundred and eight; epididymis and tunica vaginalis, eight hundred and fifty-six; all the three parts, three hundred and seventeen. The testis itself, in more than half of these cases, was but a little enlarged. Of the number here cited, the left side alone was affected in two thirds, — the right in one third of the whole.* Vidal coincides with Sigmund that the left side is more frequently affected than the right; it is on the left side also, he says, that the accident first appears when both testicles are attacked. The observations of Curling, Johnson, and others, indicate that the right testicle is the one most frequently involved. From the above evidence it is manifest that no great difference obtains as to the direction which nature takes, — the right or left.

Symptoms of Orchitis. — The attack commences with a sense of increased weight in the testis, with a dull pain along the course of the spermatic cord, in the perinæum, in the groin, and in the lumbar region. In a few hours the epididymis becomes swollen at the lower portion, or *tail*, as it is called, — is hard, knotty, and tender to the touch; the patient can scarcely tolerate any covering upon that side of the scrotum, or bear to have it come in contact with the thigh. He feels most comfortable when he holds it in his hand. In two or three days, if not arrested, the inflammation reaches the tunica vaginalis; and the general tumefaction, which preserves the natural, oval contour of the testicle, increases to the size of a hen's egg. The pain, which in the beginning was of a dull, aching description, soon becomes more absolute, especially when the patient attempts to assume the erect posture. There is great

* British and Foreign Med. Chir. Review, Oct. 1856.

irritation in the bladder, and a constant desire to urinate. The distress about the loins, hips, and scrotum is sometimes excruciating. As the disease advances to its culmination, the surface of the scrotum, which invests the gland, participates in the inflammation, becomes red, hot, thickened, and œdematous. Generally, the constitutional disturbance is not severe; occasionally, it assumes a very serious character. Sometimes the patient suffers from extreme nausea, and perhaps vomits freely; the tongue is coated; there is great thirst; quick pulse; and all the symptoms maintain their activity for eight or ten days, by which time they are usually inclined to yield. The blennorrhagia diminishes or wholly subsides for the time being; and when the order of events is reversed in regard to the orchitis, — that is, when the symptoms begin to be less severe, and convalescence from the scrotal trouble is fairly commenced, — the gonorrhœa generally reappears. Now and then the urethral flux is not affected in any way by the swollen condition of the testicle, even where no remedies have been used, and where the swelling has gone on increasing to the size of the fist; and what is still more singular, instances have been known where the testicles have swollen and yet the discharge has become more profuse than before.

In some feeble constitutions, the symptoms are moderate in degree, slow of development, and long in duration. Such cases are less easy of management than those in which an intensity of symptoms prevails. A trivial circumstance, such as carelessness on the part of the patient, or deviation from the prescribed line of treatment, will be sufficient to interrupt his progress towards a cure, and, perhaps, will provoke an unfortunate relapse. In some such way the malady may be transformed into a chronic orchitis or epididymitis, which may harass the patient more or less for many months, or even years. I once had a case of this kind in a married man living in the country. He was of a scrofulous diathesis, and every few months, on slight exposure, was tormented with swollen testicle for more than a dozen years after his recovery from an old, neglected gonorrhœa.

Treatment of Orchitis. — The modern treatment of blennorrhagia has doubtless caused a diminution in the frequency of

inflammation of the testicle, in this country at least, although, judging from the accounts that come to us in the medical journals from the other side of the Atlantic, such would not seem to be the fact in relation to the European population.* Any apparent immunity from this accident among our people, compared with its frequency among transatlantic subjects, must be ascribed, if real, not to superiority of treatment, for that we do not claim; but rather to the more provident and careful habits which characterize the ordinary classes of our citizens. These remarks involve no contradiction; nor, I fancy, do they really traduce "our distant neighbors."

The history of the symptoms, progress, and termination of *orchitis*, as it has been studied within the last few years, and as its real character now stands unfolded in the writings of such men as Astley Cooper, Curling, Velpeau, Brodie, and others, shows it to possess the attributes of a truly sthenic disease, and to be rapidly aggressive in its tendency. The clinical experience of every practical physician and surgeon, at all familiar with the complaint, will bear witness to this truth.

If the patient has the discretion to consult his medical adviser as soon as the symptoms that foreshadow the approach of orchitis begin to declare themselves, the testicle and its immediate dependences can frequently be rescued from the impending danger. But in many instances, the man pays but little regard to the first sensations of uneasiness along the perinæum, the iliac fossa, and across the inferior portion of the spinal column. These symptoms continue for a day and a night, perhaps, when to his surprise, and while engaged in his usual pursuits, a sudden increase in their severity is experienced; his gonorrhœa ceases; a sharp pain, with swelling in the posterior part of the scrotum, and other abnormal phenomena already specified, arouse his fears. He takes to his room, and the physician is summoned. The individual being in the condition here supposed, should be directed to go to bed and lie on his back. A cushion of cotton and an old soft napkin should be so arranged between the thighs as to support the scrotum, and be gently tucked up against it, so that no dragging force can be

* "Whatever may be the success attendant upon the treatment of gonorrhœa in recent times, the number of cases of epididymitis does not seem to diminish." — *British and Foreign Med. Chir. Review.*

exerted upon the cord. The proper position of the parts being well secured, they are to be kept wet with cloths dipped in cold water. In two or three hours, ice may be added to the water. The patient will tolerate this degree of cold now, much better than he would at first. It is not exactly prudent to commence with ice-water. It is safer, as well as more comfortable to the person, to reduce the temperature gradually. The application may be continued without intermission, so long as it gives relief. A brisk cathartic should be prescribed; low diet, as orange-ade, rice-water, bread-and-toast-water, or tea, and the like, for nourishment. It is hardly necessary to say that all stimulants should be forbidden. These measures, adopted early, will be likely to check the further progress of inflammatory action. They constitute, at any rate, the most judicious antiphlogistic treatment that can be instituted. They are to be persevered in with greater or less energy, according to the severity of the case and the constitution of the patient. If the symptoms continue to increase, ten or fifteen leeches should be applied to the perinæum, over the course of the inguinal canal or upon the dartos, and the flow of blood should be promoted by the application of warm water. It is seldom necessary to resort to venesection, not even by opening any of the scrotal veins. The latter operation would not be free from danger. It might expose to phlebitis. Instances of the kind are on record. After a sufficient quantity of blood has been abstracted, ice-water should again be applied to the scrotum. If half an ounce of lead-water and an ounce of alcohol be added to each pint of the ice-water, the efficacy of the lotion will be still more conspicuous. As the inflammation subsides, the use of lukewarm water will be found to agree better than a refrigerant.

Mercurial Ointment; Iodide of Potassium Ointment. — In some cases, one or the other of these may be advantageously used after the inflammation has abated. If the mercurial be selected, let it be spread on flannel and the whole scrotum laid in it. Its effect in reducing the swelling is sometimes remarkable; but it is liable to irritate the skin so severely that some men cannot bear it. If it be allowed to remain for any length of time, it will occasionally bring out a vesicular eruption (eczema mercuriale) which will be a source of no little discomfort, if the

patient be endowed with a particularly sensitive skin. The iodide of potassium, in the proportion of a scruple to the ounce of benzoated ointment, may be used instead of the first-named ointment, with similar results in diminishing the enlargement, and in preventing the morbid action from extending to the tunica vaginalis. The potash will likewise occasion an eruption upon the integument; so that its use is not without objections. There is this, also, to be thought of: the continual application of an unguent to these parts, for several days, will get matters into an uncomfortable, dirty condition, which is not easily got rid of. Lotions and fomentations, all things considered, are to be preferred; and, in chronic enlargement of the testicle or of the epididymis, the following application is the best that can be selected: —

℞. Iodinii, ... gr. ij.
Potassii Iodidi, ... " vj.
Aquæ Ferventis, ... ℥ xvj. M.

This solution should be used, *warm*, as a fomentation to the affected parts, by means of a large sponge, three or four times during the twenty-four hours. In cases where the tincture of iodine, or either of the above-named ointments, seems to be indicated, it will be found particularly agreeable, as well as beneficial, to the patient. The sponge should be kept in contact with the scrotum for thirty or forty minutes at each application. The progress of absorption will thus, in many cases, be hastened in the most effectual manner. This local treatment is both mild and cleanly, — two not unimportant particulars, in which it has the advantage over the tincture and the unguents, while its discutient power is not inferior to theirs.

The watery extract of belladonna, dissolved in the proportion of one drachm to a quart of boiling water, and applied by means of flannel cloths to the scrotum, and renewed repeatedly, will sometimes promptly relieve the pain, and render efficient service in promoting a speedy cure.

The employment of cathartics should be so timed, if possible, that the patient may not be disturbed by their operation during the hours of night, — the season which he most needs for repose, and of which, if he be robbed, the succeeding day will

find him irritable, disheartened, and in all respects worse than he would have been after a night of rest. Purgatives, therefore, in the early part of the day, and opiates by night, should be the order of arrangements. Attention to such small details will aid not a little in promoting the comfort and actual convalescence of many persons, whose genitals are the seat of inflammatory disease, whether acute or chronic.

A few practitioners still cling to the old method of giving mercury to the point of salivation, or even beyond it, in nearly all cases of epididymitis, or true orchitis. They find great difficulty in laying aside preconceived opinions and practices, emanating from the high authority of some favorite teacher; and they rely on the internal employment of the above-mentioned article as well nigh omnipotent in controlling every form of phlegmasia; and are slow to believe that mild laxatives, quiet repose, anodynes, opiates, narcotics, and diaphoretics can accomplish any great amount of good, unless "mercury is thrown in" as an accompaniment.

It should be borne in mind, when mercury is thought of, that the dyspeptic, the scrofulous, the nervous, those who have naturally a feeble constitution, or who have become debilitated by their wild habits, rarely do well under the use of mercurials, while suffering from any active disease.

In acute orchitis, there is excessive irritability of the seminal apparatus, — an irritative inflammation. The condition of the testis is not of the precise nature of inflammation in the strict sense of the term, as when we speak of swelled testicle from a kick or severe blow. The complaint, in its recent stage, even where the symptoms are severe, will sometimes yield readily to low diet, a moderate purgative, and the subsequent free use of the tincture of hyoscyamus. The latter may be given in drachm doses, every three hours, in rice-water or barley-water, until a decided narcotic effect is produced. As soon as the patient experiences the specific influence of the henbane, the local symptoms will almost certainly abate; and it may afterwards be employed in diminished quantities.

The following combination of antimony, sulphate of magnesia, and colchicum, may likewise be used in many cases with good results. It will be sure to maintain a slightly nauseating and depressing effect on the stomach, while at the same time it

will keep the bowels free, and help to subdue the inflammatory diathesis.

℞. Antimonii Potassio-Tartratis, ... gr. ij.
Vini Colchici, ... ʒ iij.
Magnesiæ Sulphatis, ... ʒ j.
Aquæ, ... ʒ viij. M.

Give half an ounce of this mixture every two or three hours during the day. The frequency of the dose must be varied, of course, according to the effect. At bedtime, morphine may be required to insure quiet rest.

℞. Morphiæ Sulphatis, ... gr. j.
Aquæ Camphoræ, ... ʒ iss. M.

Dose. — One drachm, to be repeated in three hours, if necessary to procure sleep. Opiates may be given at any time to allay pain.

PUNCTURING THE TUNICA VAGINALIS TESTIS AND EPIDIDYMIS.

If the disease has extended to the tunica vaginalis, and effusion has taken place within that membrane, at any stage of the inflammation, the operation of puncturing the tunica should be resorted to, and the fluid evacuated. The operation is entirely practicable, and gives immediate relief. The puncture is to be made with a grooved needle. In true orchitis, where the body of the testicle is involved, and the pain severe, in consequence of constriction occasioned by the tunica albuginea, punctures may be made with a lancet into the testicle itself. This practice was first proposed by M. Petit, and is adopted by Ricord, Velpeau, and other surgeons. The epididymis may be punctured in the same manner, and with equal safety. The operation does not interfere with the physiological functions of the parts in question. It removes the most distressing symptoms, and hastens the recovery more rapidly than any other method. Cases requiring these measures, however, are comparatively infrequent. A timely and continuous application of refrigerant lotions, and other antiphlogistic treatment, will usually be productive of amendment and complete cure in a short time.

Compression of the Testis. — In 1836, Dr. Fricke, surgeon to the General Hospital of Hamburg, recommended the application of compression to the testis, by means of strips of adhesive plaster, as a substitute for every other form of remedial appliances, in the treatment of orchitis. Following the recommendation and practice of Fricke, many other surgeons have adopted his method of pressure, and, up to this day, have borne testimony to the simplicity of its application, to the slight trouble it gives the patient, and to the trifling care and attention required on the part of the medical attendant. They also speak in the most decided manner of its efficacy in relieving pain, and promoting a rapid cure of the disease itself. At St. Bartholomew's Hospital, strapping the testicle, in cases of epididymitis, is regarded as the best plan of treatment. When, in consequence of pain, it cannot be carried out, the use of leeches to the parts, and the administration of emetics, are resorted to; and these are very efficient means for reducing the inflammation of the organ.* To some surgeons, the employment of emetics, for the relief of orchitis, may seem a strange mode of procedure. The late Professor Nathan Smith, of New Haven, recommended this treatment. In some instances of orchitis, I have prescribed emetics, and beneficial results have followed their use. The relief is sometimes immediate, and is to be explained on the principle of what is called revulsive action. Hunter tells us that he had known an emetic to remove the swelling almost instantaneously. The effects of the remedy, he thinks, most probably arise from the sympathy between the stomach and the testicles. In acute and severe attacks of swelled testicle, or of epididymitis, free vomiting will speedily relieve the local symptoms in many cases; and if, after the use of emetics, the surgeon decides upon the employment of adhesive straps to the testicle, the application will, in all likelihood, be less painful. The emplastrum ammoniaci cum hydrargyro may be used, or one composed of soap, belladonna, and adhesive plasters, in equal proportions, and carefully spread on thin, firm leather. The strips of plaster are to be cut about two-thirds of an inch wide; and the manner of employing them is as follows: The patient is placed in a recumbent position, and

* Holmes Coote, on Gonorrhœa, 1857.

the surgeon having gently drawn down the testicle to the lower part of the scrotum, the skin of which is stretched over the surface of the gland, proceeds to apply the strap in a circular manner, commencing from above the insertion of the cord, which must be closely embraced in order to prevent the testicle from slipping through the loose rings of the plaster, when the inferior portion is compressed. In this way the operator encircles the gland by a succession of straps, each lying over its predecessor by one third of its width, until the whole organ is covered. A second series of straps is then passed from above downwards, and thus the entire testicle is completely enveloped and compressed.

When the local symptoms have begun to wane, and the diseased gland will bear considerable squeezing with the hand, compression with straps to a moderate degree may be advantageously applied, for the purpose of promoting a more rapid subsidence of the swelling, the removal of plastic exudation, and of the thickening of the epididymis. At this juncture, the internal use of the iodide of potassium will be serviceable. Should the inflammation be very severe, or be on the increase, or if there be great effusion into the vaginal sac, compression will do harm. But when the tunic has been punctured with the grooved needle or the lancet, and the fluid drawn away, pressure can then be beneficially resorted to. This plan has often been adopted, and it works well. But the most favorable time for the employment of pressure, if applied at all, is after the chronic stage has fairly set in. After the straps have been adjusted, the patient should be confined to the recumbent position and to a low diet. These precautions will ward off any tendency to increased inflammatory action, and will render the cure more effectual and speedy. The views of Ricord on this subject are thus communicated by Mr. Acton: —

"Swelled Testicle. — Compression of the testicle by means of strapping has now been mostly given up by M. Ricord in his hospital; it is, he still admits, an excellent remedy when well applied, but the patient should be seen in the early stages, twice a day, and the strapping re-applied, if necessary. Without watching, this treatment is sometimes accompanied with

disagreeable consequences, which aggravate the complaint; at least the French professors think so; but in London, in private practice, I have every reason to be satisfied with the treatment, which shortens the duration of the disease very much, and dispenses with the usual inconveniences attending these cases. M. Ricord places his principal dependence on leeches, mercurial ointment and plaster, and, above all, a purgative taken every morning, consisting of aperient salts. In this last recommendation, I can bear testimony most fully." *

Mr. Johnson is extremely severe in his condemnation of the practice of strapping the testicle. He compares it to the process of the buccaneers of the Spanish Main, who slung their prisoners to the yard-arm by the testicles, until they confessed where their dollars were laid. "If," says he, "the inflammation is acute, it is a piece of ridiculous cruelty; if mild, it is disproportionately painful, troublesome to manage, apt to lacerate or excoriate the skin, and not a little treacherous. I would not wish to be understood that I would *never* recommend it nor have recourse to it. Where concealment is a great object, where the patient is not of a nervous habit, and either is not sensible to pain, or has the will to bear it, and where the inflammatory action is moderate, pressure may be fairly tried. Yet even here, with all things in its favor, I warn the young surgeon not to expect too much from it. I believe that in most cases it is better left alone, and I am mistaken if it is not declining in favor, and likely to decline still more. At all events, the conclusions I have arrived at and expressed, are founded on my own experience and pretty numerous trials of it."

In chronic cases of epididymitis, where there is a lingering induration, and a low degree of inflammatory action, extending, perhaps, to the glandular portion of the testis, with but little constitutional disturbance, the antiphlogistic treatment is not required; it is, in fact, injurious. The patient generally looks pale and feeble, and is in just that condition that calls for a generous diet and the careful use of bitter tonics. He is liable to have uncomfortable nights. He is unfit for much physical activity by day, and the sleep of the laboring man is not his.

* Lancet, December, 1854.

He, therefore, requires some artificial aid to ensure the necessary repose; and opiates, sparingly as may be, must be allowed at the hour of rest. During the day, free libations of sarsaparilla decoction will be found useful. This drink is something more than a mere beverage to fill the stomach and employ the kidneys and bladder. Its mild and agreeable tonic qualities endow it with more than negative claims to favorable consideration as a constitutional remedy. In this class of cases, some mercurial preparation may be found serviceable; but it should hold a subordinate place in the general treatment. Whatever form is selected, the course should be a very mild one, and should stop entirely short of salivation, or even before any but the slightest affection of the gums is perceptible. Two formulæ are here submitted, either of which will scarcely fail to suit, unless some peculiar idiosyncrasy is inherent in the patient.

℞. Pulveris Opii, ... gr. vj.
Pilulæ Hydrargyri, ...
Extracti Hyoscyami, āā, ... ʒ iss.
M. ft. pil. No. xxx.

The other mercurial preparation is the bichloride: —

℞. Hydrargyri Chloridi Corrosivi, ...
Ammoniæ Muriatis, āā, ... gr. v.
M. ft. pil. No. lx.

Of the above pills one may be taken morning and night. The condition of the mucous membrane should be carefully watched during their use.

Together with the sarsaparilla and the pills, small doses of iodide of potassium may be given, thus: —

℞. Potassii Iodidi, ... ʒ ij.
Tincturæ Cinchonæ Compositæ, ... ℥ iss.
Aquæ Fontanæ, ... ℥ iij. M.
Dosis. — One drachm thrice a day in compound decoction of sarsaparilla.

The scrotum should be well supported in a suspensory bag. The patient should be encouraged to be abroad in the open air as much as possible, and to bathe daily in warm or cold water, as he may choose. Dashing a few tumblers of cold water

against the pubes three or four times in the day, will likewise tend to restore the parts to their normal condition. The application of the compound tincture of iodine to the scrotum will contribute to the removal of any induration or swelling of the epididymis or testicle, and to the perfect restoration of the parts to health.

CHAPTER VI.

HERPES PRÆPUTIALIS.

This vesicular affection is of frequent occurrence. Men who have a long, superabundant preputial membrane are more liable to be troubled with the eruption than others. Those who are familiar with its appearance in the different stages of its existence, and who have much practical experience in its treatment, may consider that it is so insignificant, and so unlike any syphilitic sore, that it is hardly entitled to consideration in this place. But a correct diagnosis of the eruption is a matter of no little consequence; for an error or confusion here will lead to improper treatment, to say nothing of the moral bearings immediately connected with the subject.

Patients who have contracted herpes upon the penis in consequence of sexual intercourse, or who have suffered from it as a concomitant or sequel of blennorrhagia, have occasion to apply to the physician for the purpose of obtaining his opinion in the premises. And in some instances herpetic eruptions located upon the foreskin have been treated as chancrous products. Such cases have presented themselves to my notice, and, although not frequent, they justify the appropriation of a few pages to the exanthem in question.

Symptoms. — The most common seat of the eruption is along the border of the prepuce, where the external and internal surfaces meet. At first, a sensation of heat and smarting, accompanied with considerable itching, draws the attention of the patient to the part upon which the eruption is about to be evolved. Upon inspection, he notices that it is slightly thickened and suffused with a preternatural redness; and if he merely touch it with his fingers, he induces a higher degree of itching, and rubs it with the expectation of appeasing the sensa-

tion. In a few hours he perceives, if he looks, an aggregation of some dozen or twenty points closely crowded together, and, on careful examination, discovers that these pimples are filled with a transparent, watery fluid. They are the vesicles of herpes præputialis. They are about the size of a common pin's head, and have been compared to so many transparent glass beads reposing on a red base. Instead of one group or cluster, two or three may appear simultaneously. They are not inclined to enlarge the area they occupy, but have nearly the same dimensions in the latter stages which they had at first.

Instead of appearing on the confines of the preputial orifice, as mentioned above, the eruption may arise at a little distance from it, either on the mucous or cuticular surface of this membrane. In two or three days, the contents of these globular vesicles lose their transparency, and are slightly turbid ; and in four or five days the matter becomes puriform. The walls of the individual vesicles break away, and the eruption is then confluent. Next, desiccation ensues, forming a thin, delicate incrustation, which in two or three days is cast off, and brings to view a smooth, raw, florid spot, amounting to little more than an abrasion ; or, if it be an ulcerated surface, it is of the most superficial kind, and has no hardened base as in syphilitic ulcers. When the complaint is situated on the inner surface of the prepuce, the inflammation is generally quite severe. The vesicles are usually a little larger than when developed on the external surface. The serous exudation of herpes passes rapidly into a lactescent state ; the membrane or sac containing it is easily ruptured, and excoriations are produced, which may be mistaken for venereal ulcerations. But the speedy development and progress of the eruption, the level of the exposed surface after the incrustations have fallen off, with the adjacent healthy tissue, and the ordinarily transient duration of the affection, are entirely in contrast with the true venereal sore. I must here append the qualifying remark, that, if the herpetic action take place on the inner surface of the prepuce, no incrustation or scab is formed, in consequence of the constant moisture of the parts, and their protection from the air.

If the eruption be not seen by the physician until five or six days after its first appearance, — by which time incrustations may have formed on the skin, or the secretion have passed into

a sero-purulent state, — and if its antecedents indicate that the patient has been exposed, then it will not be an easy matter to say whether the affection be follicular chancres, or simply herpetic. Under such circumstances the practitioner can very properly claim a postponement for a day or two, before he expresses a decided diagnosis, meantime keeping matters in *statu quo* by some mild appliances. This is a justifiable and wise arrangement, for upon a true recognition of the malady will hang the proper line of treatment.

The eruption of herpes, when situated upon the foreskin, is quite evanescent, if not injudiciously tampered with. It runs its course in eight or ten days, and then, in most cases, all is over. Occasionally it becomes chronic, and, whatever be the treatment, is extremely difficult to cure. Some men, of peculiar cutaneous susceptibility, are troubled with frequent attacks. The eruption will readily disappear under the application of chloride of soda or lead-water, in weak solution, and will be reproduced by a variety of trivial causes, such as the ordinary friction of the trowsers, neglect of cleanliness, constipation, errors in diet. I have known sea-bathing to occasion this eruption.

Sometimes numerous minute vesicles are seen clustered on the mucous surface of the prepuce, along the fossa just behind the corona glandis, and forming a cincture around the organ. The accompanying inflammation is moderate; and when the vesicles burst, there is seldom any disposition to assume an ulcerative process, and there is a total want of depth to the sore.

The foregoing description corresponds, in the main, with the characteristic features presented by herpes præputialis, whether situated on the external or internal surface. The complaint derives its chief importance from two facts: one is, that it is too apt to be regarded by the patient, and sometimes by the medical adviser, as syphilitic; and the other, that a man having it, or being predisposed to it, is more liable, *cæteris paribus*, to contract a venereal affection than one who has no such herpetic tendency.

The following case occurred in my practice a few years since. I introduce it here, as illustrating a method of procedure which may be applicable to other patients in like circumstances: —

A clergyman from a neighboring State consulted me for a preputial eruption, which had troubled him at intervals for several years. Leading, as he did, a sedentary and studious life, he had become rather thin and dyspeptic, and not a little nervous. Like many others, he had a ready faith in the stories that are so often concocted among the ignorant and the credulous, concerning the divers ills that befall the sexual system. He was a married man, and his wife an invalid; but she was free from all known uterine or vaginal derangement. My clerical patient had, however, imbibed the notion that his wife was the cause of his genital trouble, especially as it was aggravated by sexual intercourse. Another circumstance, still more singular, was, he believed his complaint to be *syphilis;* and as he proceeded in the narration of his case, he remarked, "I suppose I have got what they call the ladies' disease." I asked him if he considered his wife a virtuous woman. "As pure as the Virgin Mary," was his reply. I requested to examine him; and upon inspecting the virile organ, the prepuce was found to be much elongated and narrow, its whole border thickened, slightly everted, and covered with herpetic disease. A little extra force brought the prepuce fairly back, so as to expose the glans, which was covered with a dense sebaceous deposit. The gentleman was quickly told that the *fons et origo mali* was within himself, and that his trouble, instead of being syphilitic, was the offspring of malformation and neglect of cleanliness. The treatment proposed was, to keep the bowels regular, exercise freely in the open air in all good weather, practise daily ablution of the whole body and limbs in cold water, and away with all thoughts of the "ladies' disease." As a topical application, the following lotion was prescribed: —

℞. Liquoris Sodæ Chlorinatæ, ... ʒ iij.
Aquæ Fontanæ, ... ℥ x. M.

To be applied constantly by means of a soft rag; also to be injected between the glans and prepuce repeatedly during the day. Some months after prescribing for the patient, I addressed to him a note, and received the following reply: —

"With respect to the subject concerning which you wrote me, I would say: I followed your directions for nearly six months;

received relief from smarting and soreness in about six weeks. The disease seemed to be removed almost entirely in six weeks. Occasionally I feel a little smarting and experience a little inflammation about the once diseased place. At such times, I resort to your prescriptions, and after one or two applications of the wash, etc., the difficulty is removed. I think yours is the remedy for such a complaint as mine was. Allow me to thank you most cordially for the benefit I have received from your directions. I. B."

CASE II. — *Herpes præputialis twice in the same man in connection with acute gonorrhœa.*

June 15, 1856. — Patient A. K., aged twenty-six years. Thin, tall, spare frame. Twelve days ago fell into bad company, and, as a consequence, contracted gonorrhœa, which appeared in five days after exposure. To-day the discharge is copious, thick, and puriform. Ardor urinæ for last two days, and painful erections and chordee the last two nights. Prepuce very long, contracted, and inflamed; about the orifice, numerous herpetic vesicles have formed. Complete retraction of prepuce difficult. No balanitis; no swelling of inguinal glands.

For the blennorrhagia, cubebs were prescribed, and in a few days the discharge ceased. The herpetic eruption, produced by the irritation of the urethral secretion, continued undiminished for four weeks before the prepuce was restored to its normal condition, notwithstanding the free use of opiate lotions, lead-water, chloride of soda, etc.

November 29, 1856. — A. K. has signalized his folly by plunging into danger anew. The exposure happened on the night of the 14th; and on the morning of the 20th, the present attack of urethritis declared itself. A sense of shame prevented him from calling earlier for treatment. The gonorrhœa on this occasion degenerated into a gleet, which lasted for three months. The reason for this was, the patient became reckless of all directions and restrictions. The prepuce was again the seat of herpetic disease, more severe than during the previous attack. The inguinal glands of the left side were enlarged, and the condition of things for a short time was similar to that seen in genuine follicular chancres or syphilitic ulceration of the prepuce. Had the case been seen by a surgeon for the first

time while at its acme, he would have found the real character of the disease a question not easily settled, unless a detailed history of it from the commencement had been furnished. But as the complaint originated in a vesicular eruption, and as follicular chancres and syphilitic preputial ulcerations never have such an origin, the differential diagnosis could be readily made out. The herpetic affection did not quit its hold of the prepuce until more than eight months had elapsed.

TREATMENT. — If herpetic vesicles appear on any portion of the inner surface of the prepuce, the application of dry lint will frequently cause them to vanish; the liquor plumbi, in the proportion of a drachm to four ounces of water, will do the same; and thus prove the non-venereal character of the eruption. Sometimes the solid nitrate of silver, lightly drawn over the part every three or four days, will prove an effectual remedy. The hydrocyanic acid is likewise a valuable article to be employed as a lotion in obstinate cases of herpes, not only when situated on the prepuce of the male, but also when it attacks the genitals of females. The following preparation will be found useful: —

℞. Acidi Hydrocyanici, ... ʒ ij.
Spiritûs Rectificati, ... ʒ ij.
Aquæ Destillatæ, ... ℥ iv. M.
To be applied by means of lint.

The arseniate of iron, in common with other preparations of arsenic, possesses properties which render it worthy of a trial. The advantage of this substance is, that it may be administered in sufficient quantities, without giving rise to any of the unpleasant consequences which sometimes follow the use of other arsenical remedies. It should be given in graduated doses, commencing with one fifteenth of a grain once a day for the first eight days; then one fifteenth twice a day for eight days more; after which, the fifteenth of a grain three times a day, making the maximum daily amount to be *one-fifth* of a grain. The formula I employ is:

℞. Ferri Arseniatis, ... gr. iv.
Extracti Gentianæ, ... ʒ ij.
Pulveris Glycyrrhizæ, ... ʒ iv.
M. ft. pil. No. lx.

The pills should be taken on a full stomach. They are compatible with the use of almost any other medicine which the surgeon may wish to employ, and may be continued uninterruptedly for three or four months, if necessary. They are not only useful in herpes, but also in squamous affections. The arseniate of quinine is likewise a valuable medicine for the same cutaneous maladies. The dose is one third of a grain blended with the extract of gentian, and taken directly after the morning and evening meal. The tincture of the muriate of iron, twenty drops three times a day, in a gill of water, is also useful in obstinate cases of herpes præputialis.

Whatever course of treatment is pursued, it should be a principle of cardinal importance to rectify any constitutional derangement that may be present.

Simple and insignificant as the foregoing eruption is represented to be by some authors, it occasionally shows itself more than a match for the skill of the medical attendant, and remains upon the patient as a source of sore vexation.

CHAPTER VII.

ECZEMA PRÆPUTIALIS.

In bilious and sanguineous subjects, who have a dry, unperspirable skin, and indulge in strong proclivities for eating and drinking whatever comes before them at table, the preputial integument, especially if there be a redundancy of it, sometimes proves to be a favorable locality for the development of this complaint. Its occurrence, however, is less frequent than the preceding affection; but of the two, it is usually the more serious and persistent. Although both present a common elementary type, — that is, a vesicle, — yet the course pursued by the two is widely different. The solitary vesicles of eczema are smaller and more acuminated than those of herpes. They are accompanied by a sensation of heat and pruritus of higher intensity than the herpetic affection, and no application seems adequate to appease these annoyances for the time being. After the vesicles have occupied the prepuce for a day or two, they are inclined to become confluent; and in consequence of the effusion of serum beneath the epiderma, they form small, oblong, flattened bullæ, half the size of a pea at the base. The cuticle of these multilocular vesicles is easily broken, and a glutinous exudation, having the peculiar sickly odor well known in eczema when situated elsewhere, is distilled in sufficient quantity to stand in drops on the inflamed and denuded derma. The malady, at first, covers but a small patch of ground, but is rarely content to keep within its original limits. It has a diffusive tendency, and in this respect differs from herpes, which has no disposition to spread when situated on the same part. Unlike the eruption of herpes, also, it seldom implicates the mucous lining of the prepuce, but in most instances extends over the entire external surface, seizes upon the dartos, is now severe, now better, fitful in its behavior, for a few days highly inflamed and yielding a copious exudation, then occasioning

scarcely any moisture, itching, or redness; but a flimsy laminated incrustation is formed, blended with newly formed cuticle. This latter condition suggests to the inexperienced eye a proximity of cure; but in lieu of this, a few rough, involuntary scratches with the finger nails, which the affected parts are pretty sure to receive, reproduce the eruption in two-fold severity, and dissipate all hope of immediate deliverance from this local trouble.

For the most part, the eruption appears in connection with chronic blennorrhagia. The secretion which it yields spreads over the sound skin, and by the irritation it excites, causes an extention of the trouble in every direction. It is very apt to assume a chronic form, and when it does it sometimes simulates psoriasis. It is, however, but a resemblance. I do not believe it ever loses its identity, or that it undergoes a transformation into another disease. We might as well say that one animal or one plant degenerates into another. The two maladies in question are different in appearance, and require different treatment. Even where the vesicles have ceased to form in successive crops, and when the prepuce and even the scrotum remain covered with scales, — these, as the result of eczematous action, are less friable, less furfuraceous, and more laminated, broader and flatter, than the scales of psoriasis. Furthermore, in long-continued eczema of the prepuce and dartos, the integument, after the scales are removed, does not present that smooth, red, polished, elevated surface which is observed in psoriasis; but is rough, chapped, and marked by fissures, from which, as well as from the sudatory apparatus and the hair-follicles, a frequent and copious oozing of the irritating fluid of eczema will take place. Eczema, of however great duration it may be, rarely ever loses its natural tendency to form vesicles on some portions of the integument, which is the seat of the complaint. They appear here and there, as solitary specimens, just outside or inside the borders of the affected district, remain for a few days, a new source of trouble to the patient, and then disappear. These facts or circumstances do not happen in psoriasis. Sometimes the eczematous eruption, especially if it spread over the dartos, or along the upper part of the thighs, or over the pubic region, fraternizes with impetigo; that is, the exudation beneath the cuticle consists, from almost the very beginning, of a small

number of pus globules suspended in a large quantity of serum, and giving it an opalescent appearance; and the inflammation, the heat, the scalding, and burning sensations, that accompany the evolution of the eruption, attain a higher degree of activity than in simple eczema. The scabs and incrustations become thick, firm, and rugged. The affection having these impetiginous characters, is partial to the upper part of the thighs in both sexes, and is occasionally met with as the joint production of chronic blennorrhagia and want of cleanliness, and has been mistaken for a true syphilitic pustular disease.

TREATMENT. — The means best adapted for treatment must necessarily vary according to the degree of severity which the disorder assumes. Ordinarily, but a limited portion of integument is involved at any one time, and local applications of a soothing, unstimulating kind may be relied upon. During the day the following lotion may be used: —

℞. Liquoris Plumbi, ... ʒ ij.
Glycerinæ, ... ʒ iij.
Aquæ Fontanæ, ... ℥ viij. M.

At bedtime, the parts may be covered with the benzoated oxide of zinc ointment, prepared as follows: —

℞. Gummi Benzoini pulveris, ... ℈ iij.
Adipis præparatæ, ... ℥ iij.
Liquefac, cum leni calore, per horas viginti quatuor, in vaso clauso; dein cola per linteum, et adde,
Oxydi Zinci purificati, ... ℥ ss.
Misce bene, et per linteum exprime.*

The benzoin prevents decomposition in the above ointment; so that it does not become rancid as is the case with ointments generally; and as a soothing, local application, it is all that can be desired. I have prescribed it almost daily during the last year. If there be much discharge from the eczematous surface,

* "The benzoated oxyde of zinc ointment, properly prepared, is the most perfect local application for all chronic inflammations of the skin that is known." — *Erasmus Wilson, on the Skin, fourth edition, p.* 73.

it should be wiped off with a soft rag, *but not washed;* and the ointment may be used two or three times during the day, if the surgeon choose, instead of a lotion. The old prejudices against "greasy applications" need not be raised against the ointment here recommended. The sulphuret of potash is prescribed by some writers. This article has an extremely unpleasant odor, soils whatever it touches, and my experience with it as a topical application leads me to regard it as inferior to the remedies above suggested. Acetic acid, six drops to the ounce of water, and used repeatedly during the day when the pruritus is troublesome, will be found beneficial; so, also, equal parts of lemon-juice and water, dabbed upon the spot with a bit of rag, will, in many cases, wholly quiet the itching.

When the eruption attacks the scrotum and thighs, it is nearly useless to rely on mere topical applications. The patient requires constitutional treatment. The first of such remedies in importance, are moderate saline cathartics, provided the patient is of a full habit. If of an opposite constitution, aperients will be sufficient. In all stages of the eruption, a free state of the bowels should be maintained. The alimentary canal can be made to perform excellent service to the skin, and should never be allowed to remain idle a single day. The uropoietic apparatus may also be employed in the work of relieving the cutaneous vessels. I have derived advantage from the use of bitter-sweet and common yellow dock-root combined as follows: —

℞. Solani Dulcamaræ, ... ℥ j.
Pulveris Radicis Rumicis Obtusifoliæ, ... ℥ ss. M.

Let these ingredients be put into a quart of water, and simmer over a slow fire, until the water is reduced to a pint and a half. Strain the decoction, and direct the patient to take an ounce of it three times a day. The quantity may be gradually increased, unless some unpleasant effects, such as vertigo, nausea, or palpitation, are induced. After the decoction has been taken for two or three days, its influence is usually manifested in a decided manner by the increased action of the kidneys and bowels; and amendment of the cutaneous affection follows very soon afterwards.

The liquor potassæ and the aqua acetatis ammoniæ are likewise remedies which ought not to be omitted. Either of them may be taken in liberal doses, unless some known circumstance should exist to contraindicate their use. In regard to the employment of arsenical preparations, the course recommended in herpes præputialis can be prescribed with equal advantage in eczema of the same or neighboring parts.

CHAPTER VIII.

IRRITABILITY OF THE BLADDER.

In some cases of blennorrhagia which become chronic, a certain amount of irritability of the bladder is induced, which often requires medical treatment. Persons of a nervous temperament are particularly liable to suffer from this affection, while those of a robust, sanguineous constitution, are more disposed to cystitis or inflammation of the bladder. In irritability of this viscus, the mucous membrane becomes morbidly sensitive; and the presence of the urine is quite insupportable. The patient complains of a sense of uneasiness in the lumbar region, about the verge of the anus, at the extremity of the penis, and above the pubes; he is continually haunted with a desire to pass urine, and unable to endure the smallest accumulation of this fluid. It is seldom that he suffers much pain anywhere, but his nervous system is wrought up to a state of constant excitement. He loses all relish for food, and sleep departs from him; and if these abnormal conditions are not removed, the general complexion of the symptoms will simulate those of cystitis, or what is still worse, the latter disorder will actually set in. In mere irritability of the bladder, the system is rarely affected; whereas in inflammation it is always involved. This is the rule, and should be borne in mind in forming the diagnosis. Simple irritation may also be known by the absence of that profuse secretion of mucus, which is a prominent characteristic of catarrhus vesicæ. In the latter affection, immense quantities of thick, semi-transparent, tenacious mucus, and coagulable lymph, accumulate in the bladder, and frequently block up the urethral canal, so as to impede, or wholly prevent, the flow of urine. Sometimes the complaint extends to the ureters and kidneys, which contribute a share of the secretion that is produced in such extraordinary quantities.

In irritation, the urine is free from any admixture of blood; in inflammation, it is more or less deeply tinged. In inflammation, there is constant and severe distress in the rectum, with a sensation of heat and throbbing in the part as well as along the course of the perinæum; and if the surgeon make gentle pressure upon the supra-pubic region, the patient will complain of lancinating pain, which is not the case when the viscus is merely in an irritable state. In inflammation of the vesical mucous membrane, the symptoms, both local and constitutional, are all of a much more grave and intense character than those which prevail in uncomplicated irritation.

An acute attack of irritation occasionally passes into a chronic state, and may lead to suspicion that a calculus exists in the bladder; and this idea may suggest to the surgeon the importance of introducing the sound; whereas, if this instrument be used, the chances are that it will excite inflammation in the organ, which has been thus needlessly explored. The patient's condition goes on from bad to worse. No stone is found; and a little reflection upon what has passed, and a more abiding and deliberate attention to what is present, will now enable the surgeon to form a correct diagnosis of the case. To such a course of procedure with such results as are here mentioned, the annals of surgery abundantly testify.

The most salient points of difference between irritability of the bladder and a calculus within its cavity, may be summed up in a few words. In the latter disease, the moment of the patient's greatest suffering is *after* the last jet of urine has escaped from the meatus urinarius; whereas, if he have only an irritable bladder, the time of his greatest distress is *before* the urine is evacuated; and the amount of pain experienced will be in proportion to the quantity of urine contained in the bladder. If the medical attendant have a knowledge of these simple facts, he will have no occasion to introduce an instrument for the purpose of resolving doubts and arriving at a true diagnosis.

When irritability of the bladder assumes a chronic character, it is one of the most formidable and dreadful maladies that can befall the patient. He is compelled to keep aloof from society, and his life of seclusion is also a life of almost unremitting torment. If irritation and inflammation co-exist, as they some-

times do, the latter, being the more important of the two, should occupy our chief attention.

TREATMENT OF IRRITABLE BLADDER.

In the acute stage of this disease, the free use of opium is required. The administration of an enema containing a drachm of the tincture of opium, is one of the first things to be done when the physician is called to relieve a sudden attack of the complaint. Should the case be very urgent, the enema may be repeated in one hour. No remedy is more certain or speedy in its action than this. The laudanum may be put into about three ounces of warm water. The patient should keep the recumbent posture. Fomentations, as hot as can be borne, should be applied to the perinæum, the pubes, and hips; a warm-water bath, twice a day, will also materially aid in allaying the irritable condition of the bladder, and will quiet the general nervous excitement of the sufferer. Aperients should be administered in sufficient quantities to keep the alimentary canal in a soluble condition; and for this purpose, small doses of castor-oil will be found better than anything else of the kind. It should be given in the early part of the day. Its action may be promoted by an enema of warm water.

The individual should occupy, if possible, a large, well-ventilated apartment, and not be subjected to the annoyance of company — not even that of intimate associates. His welfare will be essentially enhanced by having quietude reign around him at all times. He should abstain from drinks as much as possible, especially those that contain a large amount of saccharine matter in solution. Even tea, coffee, and milk will be injurious. They tend to increase renal action, and thus add to his sufferings. If he complains of thirst, cold water will be the best antidote. Liquor potassæ, ten drops to a wine glass of cold water, or in as much weak hop-tea, every two or three hours, will be found beneficial. A blister should be applied over the sacrum or over the pubes. The counter-irritation thus created, will be very useful, and no apprehension of strangury need be entertained.

To keep the bladder in a state of repose, a short gum-elastic catheter should be introduced as far as the distal end of the

urethra, but must not be allowed to enter the bladder. The length of the instrument should be nine inches, which will correspond with the length of the urethra, almost invariably.* It should be carefully secured to a bandage carried between the thighs and around the loins. The instrument need not be withdrawn from the urethra oftener than once in twenty-four hours.

An infusion of diosma crenata, taken freely, either alone or with decoction of pareira brava, has long enjoyed the reputation of tranquillizing the local irritability when the disease has passed into a chronic state. Warm-water injections into the bladder are serviceable when much mucus is present in the urine. They may be employed twice in the twenty-four hours. If the contents of the bladder are offensive, ten or twelve drops of chloride of soda may be added to each ounce of the injection. Nitric acid, in the proportion of two drops to the ounce of water, is recommended by Sir Benjamin C. Brodie and by Mr. Henry Thompson, as an injection.† Nitrate of silver has been employed for the same purpose, in the proportion of half a drachm to the ounce of water, in cases where the milder forms of injection fail to check the albuminous secretion into the bladder. The operation is a painful one, and it is frequently necessary to repeat it in four or five days. Its effects are said to be, generally, highly beneficial. It is best adapted to cases requiring a strong, stimulating application to the affected organ, as when the mucous membrane is in an atonic and relaxed condition, and when there is no evidence of any inflammatory action. Injections would be inadmissible during the acute stage of the complaint; but in all chronic cases they are serviceable, not only in relieving irritability of the bladder, but also in removing any collection of mucus that may be retained within its cavity. The best and most approved method of administering injections is the one employed by Mr. Fergusson, which is, to introduce the water in a continuous stream by means of a double syringe like that of a stomach-pump.‡

If the complaint terminates in inflammation of the bladder, then, in addition to the liberal use of opiate enemata, hot baths,

* Astley Cooper. † Lancet, 1854, p. 594. ‡ Miller's Surgery, p. 490.

and blisters, as recommended in irritable bladder, it will also be expedient to resort to antiphlogistic measures. Twenty leeches may be applied to the perinæum, and the bleeding promoted by warm-water fomentations. If the use of an opiate by the mouth be required, the sulphate of morphia may be selected: —

℞. Morphæ Sulphatis, ... gr. iij.
Misturæ Camphoræ, ... ʒ iij. M.
Dose. — One drachm, pro re nata.

In a non-inflammatory condition of the bladder, or when the inflammatory action has become chronic, the balsam of copaiba should be prescribed with a view to arrest the formation of the thick albuminous deposit. No remedy more promptly checks this morbid secretion than the balsam. It can be given in capsules, from six to eight per diem, or in mixture with other ingredients, as mentioned under the treatment of blennorrhagia.

If the urine should become acid, which can be known by its turning blue litmus paper red, alkalies will be indicated.

℞. Potassæ Carbonatis, ... ℈ j.
Syrupi Aurantii, ... ʒ ij.
Aquæ, ... ʒ iss. M.
To this add the powder of citric acid, ... gr. xxiv.

Let the patient drink the mixture while it is effervescing. The draught is to be repeated several times in the day. Lemon-juice makes a good substitute for the citric acid.

If the urine should contain an excess of alkaline properties — turning red litmus paper blue — the dilute nitric acid, to the amount of a drachm each day, in three gills of water, should be taken in divided portions. The wine of colchicum, under these circumstances, may also be prescribed with marked benefit.

CHAPTER IX.

EXCORIATIONS.

SIMPLE abrasion of some portion of the glans penis, or of the mucous or cutaneous surface of the prepuce, is not an infrequent accident resulting from sexual congress. The injury takes place where there is a want of co-aptation in the relative size of the organs, or where the parties engage in their amative embraces in an impetuous manner. The most frequent locality of the disease is near the frænum, or just behind the corona, among the glandulæ odoriferæ. Although it is one of the non-specific affections incidental to the venereal act, it is very apt to be viewed by the patient with alarm, as being syphilitic. The excoriation is sometimes situated on the free edge of the prepuce, especially when the latter is long and narrow, and does not readily retract behind the glans. Such a prepuce is liable to receive the brunt of the effort; and the seat of injury is along the line of union between the two surfaces, oftener than elsewhere; and least in frequency the lesion is met with upon the dorsum of the glans and on the external surface of the prepuce, a few lines from the orifice. When situated within the preputial cavity, the abrasions, if neglected, sometimes assume an appearance closely allied to chancres. They ulcerate, occasion little or no pain or smarting, and are attended with only a moderate inflammation. If early treated, they can be easily cured by simple applications; but if allowed to take their own course for a week or two, uninfluenced by remedial means, the sores or ulcerations which form upon the abraded spots are extremely reluctant to heal, — not on account of any peculiar, bad quality inherent in them, but partly because of the structures in which they are situated, and partly from the fact that the secretions to which the diseased surface is exposed keep up a morbid irritation. Generally, there is but one irritated patch. The patient states that it attracted his attention immediately after the

exposure in which it originated; and this fact is important in aiding the physician to distinguish it from chancre, at whatever period he may be consulted in the case; for the latter affection is always more tardy in manifesting itself after the application of the cause. If, when the medical attendant sees the individual for the first time, the part is in a state of ulceration, the interval between the exposure and the development of the disease, is a point that should always be ascertained. If he computes the time between the cause and the effect by hours instead of days, it is almost certain that the excoriations or ulcerations are not venereal. It is worthy of recollection that the item of *time* furnishes one of the surest "rational signs" which the case admits of; and whatever the anatomical appearances may be, as suggestive of the nature of the affection, they never, in my estimation, transcend in value the chronological evidence derived from the patient. So far as physical characters go, we are unable to distinguish these sores from chancres, to which they have a strong resemblance in situation, size, etc.

Ulcerations resulting from abrasions of the cutaneous surface of the prepuce, bear less resemblance to chancres than those situated within the orifice. They are on a plane with the adjacent healthy integument, and of course do not present the elevated, sharp, perpendicular edges which characterize chancres; nor have they any indurated base, which many chancres have. They are irregular in form and size. After the excoriation has healed, the integument remains quite tender for some time; and a slight cause, such as friction of the part against the clothing, is sufficient to awaken the injury anew. Such relapses are not uncommon, and they are generally worse than the original attack. The surface of the excoriation is larger, and the morbid action now reëstablished is more difficult to subdue. It may assume a chronic type, and give rise to a sympathetic bubo in the groin, so that the recurrence of the accident may turn out to be a most unfortunate event both to surgeon and patient. By it, the latter becomes disheartened and alarmed, distrusts the diagnosis that may have been given in the early period of his illness, impugns the treatment adopted, and expresses a desire, perhaps a determination, to be treated for the venereal disease, — a complaint which he has not got. Thus

the surgeon has a troublesome affair to manage. In illustration I submit the following

CASE. — *Excoriation of prepuce — relapse — eruption on the glans penis, and on the body, etc. — disagreement in diagnosis.*

January 7, 1857. — A. B., aged 19. Salesman. Had intercourse with a girl of the town on the night of December 31, 1856. Was conscious, before he had completed the act, that he had wounded the prepuce. Next morning the part was swollen, and he discovered an abrasion as large as the thumb nail on the dorsal aspect of the external surface, near the orifice. By the use of a weak solution of chloride of soda, the injury was healed in four or five days. On the 16th of January, the young man again called for treatment. He had been actively employed at his labors in a wholesale establishment, and his troubles had reappeared with increased severity. The excoriation now occupied more or less of both preputial surfaces, and yielded a free exudation, which irritated the adjacent parts not a little. The glans was uncovered and inflamed, but there was no abrasion upon it, nor was there any urethral discharge.

The patient was advised to suspend business and remain quiet at his boarding-house for a few days. This he said he could not do without the hazard of exciting suspicion or perhaps forfeiting his clerkship. He was told that simple as his local difficulty appeared to be and really was, it would probably resist all sorts of treatment, unless he refrained from exercise. Under these circumstances different lotions were ordered, and small doses of the iodide of potassium prescribed for internal use. After the potassium had been taken for about two weeks, a slight eruption appeared on the face and chest. This salt was discontinued, and the arseniate of iron, in the dose of one seventh of a grain each day, was substituted. The bowels were kept free by salines. For six weeks this treatment was assiduously pursued to no good purpose. The inguinal glands became enlarged and tender. On the glans, minute vesiculo-pustules appeared from time to time in successive crops. Trivial fluctuations of amendment and relapse took place. Such is the history of the case up to the morning of

February 10*th*. — At this date, numerous well-defined, scar-

let-colored, erythematous blotches were seen upon the trunk, hips and thighs, shoulders and arms. They were totally different, in appearance, from the eruption spoken of above, in connection with the use of the iodide of potassium. Nothing like a papule could be felt, as in lichen, or in recent examples of psoriasis guttata. They were on a level with the adjacent skin. What gave rise to this blotchy condition of the integument, I am unable to say. It remained about three weeks, and then disappeared. Three or four sores broke out just behind the glans penis, and two small ones were perched exactly on the corona, and the whole glans was inflamed. All these phenomena, together with the disease of the prepuce, the tumefaction of the inguinal glands, and a soreness within the buccal cavity, of which the patient complained, presented an *ensemble* of symptoms allied to real syphilis. A crisis happened to-day. The patient informed me that, although I had assured him that his complaint was not venereal, a certain respectable physician, whom he named, had casually heard of his condition, and had said that such a case must be syphilis and nothing else; and he (the patient) desired that I would treat him for *that*. I declined, and the patient was dissatisfied. I proposed that he should call at mid-day, when I would exhibit him to some of my medical friends. Three came, examined the case, and, sure enough, decided that it was *syphilis*. Thus, seemingly, the tables were fairly turned against me. In the evening, the young man called again. I informed him of this decision, and told him my own views were not changed. To put an end to the question, it was now agreed that it be referred to Dr. S. D. Townsend, Senior Surgeon of the Massachusetts General Hospital, who pronounced it to be *non-venereal*. The patient's mind was at rest. He agreed to keep house, according to previous advice, and was directed to dress the penis with a weak, black wash; that is, ℈ss. of the submuriate to ʒiv. of lime-water. This he did, and in six days was well. The foregoing case is not devoid of instruction.

If the surgeon is consulted before the excoriations have advanced to a state of ulceration, local applications will be sufficient to cure the patient at once, in all ordinary cases. The chloride of soda, Goulard's extract, or dry lint, as recommended for preputial herpes and eczema, will accomplish all

needful purposes, Should other local measures be required, the following lotion will be found useful: —

℞. Liquoris Potassæ, ... ℥j.
Glycerinæ, ...
Acidi Hydrocyanici, āā, ... ℥ij.
Aquæ Fontanæ, ... ℥iv. M. *Lotion.*

This will allay the itching and smarting, and may be kept on the part as a dressing. Oiled silk or gutta percha tissue should be used as an envelop.

℞. Liquoris Plumbi, ... ℥j.
Vini Opii, ... ℥ij.
Spiritûs Rectificati, ... ℥j.
Aquæ, ... ℥iv. M.

This last lotion is a good remedy in cases characterized by a high degree of inflammation. The black wash, of the strength mentioned above, is likewise a valuable topical application where the affection has become chronic and the inflammation feeble. The black wash, of maximum strength, is apt to produce a minute eruption on the glans and prepuce when applied to these parts. At night, the benzoated zinc ointment will be appropriate. The parts should be soaked in water, as warm as can be borne, three or four times during the day. If the ulcerations pertinaciously maintain their ground, the dilute nitric acid or the tincture of muriate of iron will constitute a suitable internal treatment. All stimulants, externally or internally, will only exasperate the morbid condition.

dashing of iced water upon the parts is also beneficial. At night, camphor and opium will be serviceable.

Most men who are afflicted with urethral pains are of a highly nervous temperament, and require to have the mind occupied in some agreeable pursuit, which will tend in no small degree to promote a cure of the local difficulty.

CHAPTER XI.

SPERMATORRHŒA.

The term spermatorrhœa, as employed by most medical writers, and as understood by medical scholars, has been brought to signify involuntary emissions of seminal fluid, recurring at sufficiently frequent intervals to derange the general health. According to Lallemand, however, all excessive generative secretions are to be regarded as spermatorrhœa, in whatever manner they may take place, and whether they have infringed upon the integrity of the system or not. This signification and use of the word is convenient, and is applicable to all cases that present themselves for treatment.

Some individuals listen to the note of alarm at an early period, and the first morbid phenomena of the kind now under consideration are viewed by them with a just apprehension; and, in anticipation of a train of mental and physical evils of direful import, they have the discretion to make known their condition to some medical adviser, and to receive from him words of salutary admonition and counsel, and thus escape impending ruin.

Involuntary discharges of the spermatic substance happen to a majority of the male sex from the time of puberty to old age, when it ceases to be elaborated. The most continent and pure-minded men occasionally find themselves subject to erotic dreams during which the event here alluded to takes place. Sometimes emissions occur without the coincidence of lascivious dreams, — at least, the individual is not conscious of them when he awakes; and he is surprised to find that the spermatic product has escaped while his faculties have been wrapped in profound sleep. These remarks are applicable to those that are in a state of wedlock as well as to those who are not, although to the latter they are particularly pertinent. They are introduced here, not because such infrequent seminal evacuations

really amount to disease, requiring medical prescriptions or surgical attentions, but because we occasionally meet with men of good intellect and high moral worth and refinement who, in consequence of this accident, suffer much mental distress, amounting to profound melancholy. These cases demand both moral and medical treatment, and should enlist our best efforts. Some men affect great indifference and even aversion to individuals who are in a suffering condition from the disease under consideration. Such patients, although they may be reaping the rewards of their own folly, are, nevertheless, the very ones who have special need of correct counsel, and are, for the most part, in just the frame of mind to appreciate a word fitly spoken by a kind-hearted, judicious medical man. They require skilful management also, and, if driven from the consulting-office of the regular physician, will unwittingly place themselves in dangerous hands rather than suffer on alone. "It has always appeared strange to me," writes Mr. Milton, "that this affection should remain abandoned by the profession to a few solitary specialists, and for the benefit of the vile harpies who prey on this class of victims. Surgery, which has wrested so much from the hands of empiricism and ignorance, seems disposed to yield up this, as if it were debatable land, to chance, philosophy, utter neglect, or quackery." Mr. Curling holds similar views, as in the following sentence: "Medical men are too apt to treat the complaints of such patients lightly, making no efforts to allay their anxiety, — a course which often leads them to apply for aid in illegitimate quarters, and to become the victims of unprincipled men."

I shall never forget the case of an estimable young gentleman who consulted me a few years ago for what he called seminal weakness. He had completed his collegiate education, and was engaged in a professional course of study at a higher institution remote from the city. His head was so filled with a wild delusion in regard to his procreative system, that his ability for intellectual employment was seriously impaired, and he was every way miserable. He told a doleful story, the sum of which was, that his present state was the result of "*chiromania*," or solitary vice, of which in former years he had been guilty. He was familiar with various trashy books on the evils arising from the

practice, and was fearful that he had so far enfeebled his intellectual and physical energies that he should not be fit for anything in future life unless he could obtain speedy help. He was of a slender figure, dark complexion, pale and dejected, and his countenance was the model of despair. He complained of sundry anomalous feelings in the urino-genital apparatus, thought the testicular organs and their corporeal forces were gradually diminishing, and believed that they would soon entirely waste away. His appetite was poor, bowels sluggish, sleep irregular and unrefreshing; he had headache and involuntary seminal emissions about once in the week. He had come to Boston as his city of refuge. It was apparent that the trouble in this case was chiefly mental, and that to dispel the hallucination which haunted his mind was the principal work to be done. He was assured that all was right and safe within the scrotum, and that the nocturnal accidents were not sufficiently frequent to require any special medical treatment. The plan proposed was this: A generous diet, bathing in cold water, and drink a bottle of Congress Spring water every morning, exercise in the open air in all good weather, read no more pseudo-physiological books; early to bed, and early to rise. He was advised, in short, to pursue a course that should combine the advantages of recreation and the appliances of health. The patient gained in appetite and flesh; the material functions of the system became natural; despondency soon gave place to hope; and, after a sojourn in the city of a few weeks, he returned into the country with unembarrassed capacity for study. In a few months he was called to fill a position in a literary seminary, where he still remains, distinguished as a man of letters and influence.

Causes. — One of the most prolific sources of this derangement of the sexual system is to be found in masturbation. This habit is usually formed at an early age, and while the boy is attending school. He is generally induced by older boys to resort to titillation simply as an affair of sensual gratification, without having the slightest idea of the terrible consequences which it may entail upon his physical and mental constitution. The precocious and fascinating excitement once experienced, and its repetition invited by the contagion of bad example, the

lad soon surrenders himself to a frequent indulgence of the all-absorbing and fatal propensity, until morbid symptoms, of various kinds and degrees of severity, are induced. The idea of self-abuse haunts him wherever he goes and in whatever he is engaged. He loses his ability to resist the promptings of the baneful passion, and seeks every opportunity to reproduce the pleasurable sensations. The constant draughts made upon the nervous energies, bring exhaustion and irritability upon the whole corporeal organization; and it is not long before the ensnared victim exhibits mournful evidence of declining health, as a matter of course. The brain is usually the first organ to give indications of disturbance originating in the debasing habit. Among the injurious effects exhibited from day to day, may be mentioned lassitude, dejection, failure of appetite, and of muscular vigor. Sometimes the boy becomes petulant and exceedingly irascible; and the impulse of temper is occasionally so intense that he is exhausted from its indulgence, and the administration of stimulants is required to relieve the serious depression into which he has fallen. In other instances, more frequent than the above, the mind sinks into an absolutely stupid condition, which gets a firm hold, and he has neither the disposition nor ability to engage in the customary sports and other innocent employments of his age; his sleep is broken, he becomes pallid and wastes away into a state of marasmus. In some instances, violent palpitations of the heart come on suddenly, threatening almost instant death; or epileptic convulsions and idiocy ensue, unless the toils which hold the infatuated victims in their embrace are effectually destroyed.

Derangements of the system, analogous to those which are seen in the male sex as a consequence of masturbation, are also observable in females who are the subjects of nymphomania; and these morbid conditions, as physiologists have long ago announced, and as daily observation confirms, are induced by over-taxing and exhausting the energies of the entire nervous fabric; and not because of any waste of spermatic fluid, for this is impossible. "The high degree of nervous excitement," says Carpenter, "which the act of coition involves, produces a subsequent depression of corresponding amount, and the too frequent repetition of it is productive of consequences very injurious to the general health. This is still more the case with

the solitary indulgence which (it is feared) is practised by too many youths."

In adult life many causes are sufficient to excite spermatorrhœa, especially in individuals endowed with a peculiarly delicate constitution or an excitable temperament. In these persons, the vesiculæ seminales acquire the habit of contracting themselves under the influence of excitement less energetic than usual, and quite abnormally so. A distended bladder, a bed too warm or too soft, lying on the back, warm or stimulating drinks, etc., provoke involuntary emissions more readily than they ought. The intimate and reciprocal relations between the vesiculæ seminales and the brain, induce lascivious dreams, *les plus désordonnés*, under the slightest direct or indirect excitement of the genital organs, and inevitable pollutions from the reproduction of all the ideas which are connected with those of generation.* Fæcal accumulations in the rectum, and the presence of ascarides are to be reckoned among the mechanical causes that occasionally give origin to this disease. A varicose state of the hæmorrhoidal veins, by exciting disturbance of the adjacent parts, will sometimes create undue activity in the seminal apparatus, and preternatural secretion of the spermatic fluid takes place. Pruritus ani is another abnormal circumstance, which, in some individuals, exerts an influence in stimulating the function of the generative organs to an inordinate degree. Other morbid conditions about the anal region may exist, and operate as excitants of frequent erections and nocturnal emissions. An inflammatory state of the urethra, whether arising from gonorrhœa or otherwise, is one of the most frequent causes of the malady under consideration. The inflammatory action, commencing in the mucous membrane of the canal, extends to the contiguous structures, as the prostate gland, vesiculæ seminales, and perhaps even to the epididymis and testes. Inflammation or irritation of the bladder may also be mentioned as now and then giving rise to spermatorrhœa. Dalliance with women, and inordinate indulgence in the venereal act, are fruitful causes of the complaint. In illustration of this last sentence I must here introduce a remarkable

CASE. — I once knew a married man, who was obliged to

* Vide Lallemand, vol. ii., page 337.

maintain an unceasing warfare against his voluptuous propensities, or rather, I should say, his sensuous desires were constantly goading him to commit the venereal act. He had a tall, slender, gaunt frame, was well fenced in with bones, but was far from being robust. The conformation of his head was thought, by some, to afford an illustration of the theory of Spurzheim, that the cerebellum is the organ of sexual impulses; and I well remember that the disciples of this German philosopher were wont to cite the singular cranial development and the well-known corresponding mental peculiarities of the man who is the subject of this narration, as lending support to the principles of phrenology. He was looked upon as the incarnation of lust, and, like the moth of the silk-worm, he died a martyr to his ruling passion. He held a fair standing among certain classes of the community, although as to his faithful adherence to the marital pledge, the birds of the air sometimes carried news. So far as related to his wife, it is certain that he had but little control over his venereal desires, or over the excessive indulgence thereof. So insane was he at one period, that he could not so much as take her hand, or sit on the same sofa with her, without being overtaken by the surges of passion, and experiencing all the phenomena that attend the complete congress of the sexes. These facts were communicated by the patient to several medical gentlemen, whom he consulted occasionally in reference to the exuberance of his animal feelings, the gratifications of which he foresaw would ultimately sap the vital organs, and bring him to an ignoble grave. His forebodings were verified in the meridian of life. His insatiable appetite was destroyed only by the hand of death.

A great difference obtains in different constitutions in regard to the consequences exerted upon the system by inordinate indulgence in venereal pleasures. Lallemand says: "I have met with men who have given themselves up early in life to the greatest abuses of masturbation, and who have subsequently had many mistresses at the same time, and who, in spite of such a mode of life, have been capable of continuing it at sixty years of age, without their health suffering. I have seen others the victims of most obstinate nocturnal pollutions, following the slightest errors of their youth. These differences do not, by any

means coexist in a constant manner with those outward characters, which announce the predominance of one of the elements entering into the composition of all organs, — still less with the development of the frame or muscular system. Thus in the sanguine, lymphatic, or nervous temperament, with a robust or delicate constitution, the usual organs may present all the varieties of volume, power, and ability."

The virile power in the male is not usually established until the age of fourteen or sixteen years. Under the influence of excitement, the seminal glands may at an earlier period secrete a viscous fluid not containing spermatozoa. In some cases, however, the specific changes which betoken, unequivocally, the advent of puberty, are well pronounced in boys of a few years old. An instance of sexual precocity in a boy of six years of age came under my observation a few years since. The organs of generation began to exhibit unusual development as early as the eighteenth month. At the age of four years, the voice was on the base key; at five, the hair began to grow on the pubes, and at six the physical organs had attained the usual adult size, and the child frequently gave evidence of strong sexual instincts. He was the son of a respectable physician, and was in all particulars well tutored.

The generative power may continue, if not abused, during a very long period. Undoubted instances of virility at the age of one hundred years are on record; but in these cases the general bodily vigor was preserved in a remarkable manner. The ordinary rule seems to be, that sexual power is not retained by the male to any considerable extent beyond the age of sixty or sixty-five years.

Individuals who are suffering, either in reality or in imagination, from an abnormal condition of any portion of the generative circle, not infrequently propound to the physician questions more or less related to the foregoing facts, which, although more strictly belonging to the province of physiology, are not out of place, it is believed, in the position assigned them in connection with the main subject of this chapter. Other facts, akin to those here introduced, might be presented, but their multiplication would scarcely increase the practical value of these pages.

Lallemand made a post mortem examination in two severe and complicated cases of spermatorrhœa, in which the patients

labored under symptoms of cerebral congestion before death. Curling states that he has in one instance had an opportunity to dissect the parts affected by the complaint, in which the patient was comatose for several hours previous to dissolution. In all three of the cases which are here alluded to, the morbid appearances were of the same character. The mucous membrane of the prostatic part of the urethra was swollen and injected. The prostate was nearly destroyed and converted into a multilocular abscess, or a number of alveoli or cells communicating with each other, and the diseased mucous membrane covering it was riddled with holes formed by an enlargement of the original orifices of the gland, through which pus or altered secretions escaped on pressing the prostate. One or both vesiculæ seminales were infiltrated with pus, and their walls thickened by inflammation. The orifices of the ejaculatory canals were enlarged and abraded. When the prostate is affected, slight pain is occasioned by pressing upon it through the rectum, and there is usually a discharge from the urethra when the patient is at stool.* In protracted cases, there is irritation and chronic inflammation of the posterior portion of the urethra. The introduction of the catheter gives pain, the patient retains the urine with difficulty, and it is sometimes tinged with blood. This morbid condition of the canal tends to excite seminal discharges, to keep alive a train of lascivious desires, and to cause the patient's mind to be occupied with imaginary scenes of sensual gratification, to the exclusion of almost every other subject.

Treatment of Spermatorrhœa.—If we could rely with confidence on the representations made by the patient relative to the facts in his case, we should, as medical advisers, experience less difficulty than we now do in directing the proper course of treatment. But, unfortunately for the parties concerned, it often requires the ingenuity of the most expert tactician to winnow the truth from error. The patient does not intentionally aim to misrepresent or deceive; nevertheless, if allowed to tell his own story without interruption, he is prone to bring forward all manner of vagaries; and we feel compelled

* Curling on the

trary may have been observed in many cases; but has there not been a little exaggeration?"

Let us now suppose a simple case of spermatorrhœa. The accident constituting the disease happens at irregular intervals; sometimes, once every night; in other instances, oftener. This state of things usually continues for a few months before the patient begins to realize that his health is declining. For a time, a sense of modesty or shame prevents him from making known his complaint, but as its debilitating effects continue, and perhaps accumulate, the system sustains itself with less ability, the symptoms gradually augment in violence, and an increasing apprehension of danger at length drives the victim to the physician. The first thing to be done with reference to treatment, is, to ascertain, as far as practicable, the actual condition of the urino-genital system. In ordinary cases, a careful examination will convince the practitioner that no *organic* change has taken place. The urethra, prostate, bladder, and vesiculæ seminales, give no evidence of anatomical lesion. In some of these organs there exists a morbid irritability, and nothing more. It is encouraging and gratifying to the medical attendant, and should be to the patient, that no structural disease has occurred. The excessive irritability of the parts is, however, in some instances, no trifling circumstance to deal with. Although not the origin of the spermatorrhœa, it now acts as the *exciting* agency of the accident; and the hope of preventing this must rest on the removal of the local irritability. Moral hygienic regimen must be associated with physical means. Both classes of remedies, psychological and pharmaceutical, are equally and properly within the limits of our domain; and the one, as well as the other, should be summoned to our assistance. No two patients are precisely alike. Every case must, therefore, be managed according to its own peculiarities and merits; and in the treatment of the causes, as well as in the treatment of the symptoms of the disorder, the medical attendant will do well to gain an insight into the mental constitution, the peculiar habits of thought, the personality of the patient. To carry out a definite and judicious plan of remedial dietetics and prophylactics for the mind, is as essential as it is to recruit the strength and energy of the physical system through the combined agency of salubrious air, cold ablutions, bodily exercise, and other restorative and

If any symptoms of dyspepsia exist, care in the use of suitable diet, and in regulating any abnormal condition of the alimentary canal, should be a prominent feature in the treatment. Very many persons who are severely troubled with spermatorrhœa complain that their food does not set well on their stomach; they have gastric or intestinal pains, flatulence, and other discomforts of the digestive organs, which should be rectified by careful attention to hygienic measures. In this way not a little can be accomplished in improving their physical condition. A judicious plan of diet and exercise is scarcely subordinate in importance to the use of pharmaceutical remedies. Tobacco, in all its forms, should be interdicted. Wine and porter may be permitted in moderation. They will serve as good tonics, and will prevent the system from being completely exhausted. The patient should avoid books of a frivolous and imaginative description; also theatres, operas, and all places of idle and fashionable resort; but, if possible, means should be devised by which his mind can be actively engaged in some useful occupation. Intellectual culture, where it can be pursued, is one of the surest methods of placing the invalid upon advantageous ground. Were circumstances convenient, and were I called upon to select a branch of study for a young man of suitable capacity, I would recommend some department of the natural sciences. They are easy of comprehension, seldom fail to entertain and captivate the individual, create no unhealthy excitement, are full of instruction, and well calculated to absorb the powers of the mind, and thus abstract it from any morbid, lascivious train of thought. A young man, once enlisted in these pursuits, will find in them a fountain of knowledge which he cannot exhaust. Mr. Curling mentions that he once had a patient, a man of great intelligence, but without employment, whose recovery was essentially promoted by his engaging in the study of chemistry, to which he applied himself with great zeal. It is well known that the sexual secretions are strongly influenced by the condition of the mind. Hence the great advantage of having the mental powers actively engrossed in some unwilling pursuit, in combination with vigorous corporeal exercise. The effect of such a course is to render less active, or even to check altogether, the processes by which the spermatic secretion is elaborated. This is a physiological fact,

of high moral importance, with those who are of a studious turn of mind, although it must be confessed that the number of such is very limited, when compared with the large proportion of directly opposite character. This latter class, however, may be brought under the beneficial influence arising from some agreeable business or task which they can execute without exhausting or greatly fatiguing the physical or mental powers, such as gardening, hunting, fishing, a journey, or a short voyage upon the sea. While I have been preparing the contents of this page, a young gentleman, — a student, — who has been under my treatment for seminal weakness, has called upon me to report his condition. He has spent the last six weeks in the country, and has been pleasantly and actively engaged every day in various recreations, — mowing, raking, and pitching hay, hoeing corn, gardening, fishing, swimming, hunting squirrels, and the like. At night, he occupied a large, well-ventilated room, lay upon a straw bed, and retired and rose at an early hour, without variation. He states that he is now in fine health, has had no seminal emissions for four weeks, has gained in flesh, his spirits are buoyant; he is now, in fact, perfectly happy. To-morrow he will resume his studies, and, to use his own words, uttered in a most animated and joyous style, "he is ready for them." If the patient cannot avail himself of any of the foregoing pursuits, let him devote a like amount of time to gymnastic exercise, verging even on fatigue. If he can be induced to resort to these regularly, and be encouraged to perform athletic feats to as great an extent as may be prudent, it will be but a short time before a decided amendment will follow. Indeed, in all ordinary cases, a cure will be accomplished. But if, after a trial of a few weeks, the plans above suggested fail to remove the difficulty, it will then be advisable to vesicate the perineal integument, or that of the sacrum, by means of the cantharidal collodion, as for the cure of gleet. The vesicatory ought to be repeated as soon as the skin recovers from the effects of the previous application. I have made repeated trials with the collodion. I have never known it to occasion the least stranguary, and instead of fearing a frightful exaggeration of the spermatorrhœa, as Lallemand seems to have done, the surgeon may look forward with the expectation of the most grati-

fying results from its use. No local remedy acts so quickly or so surely in checking the complaint. When these measures fail to effect a cure, a still more severe local treatment may be employed in chronic, asthenic cases, and that is the insertion of a seton in the perinæum. Mr. Marris Wilson regards this as one of the most effectual means, on account of the extensive and permanent counter-irritation which is excited.*

As the mischief we seek to prevent takes place during the hours allotted to repose, an important point to be gained is to bring the system into a quiescent state, — into a "deep sleep," and thus, as almost a matter of course, allay the morbid irritability of the sexual organs; and for this purpose, the exhibition of sedatives will be required. The use of opium, at bedtime, will, in many individuals, control nervous excitement in a satisfactory manner, and will also serve to invigorate the exhausted powers of mind and body. Its tendency to render the bowels costive and impair the appetite, somewhat invalidates its claims in certain cases complicated with dyspepsia. These objections may be partially obviated by combining with it hyoscyamus or conium.

The use of lupulin, as an *anaphrodisiac* has lately become a popular idea with many experienced men in the profession. It may be remarked of it that it is sometimes decidedly efficacious. Given in doses ranging from thirty to sixty grains, in sweetened water, when the patient retires for the night, it frequently induces sound sleep, prevents erections, and lessens the chances of seminal emissions. Another point of importance may be predicated in regard to its properties: it does not appear to interfere with the healthy functions of the stomach or other digestive organs. The only inconvenience mentioned by those who have taken it is a sense of drowsiness and moderate cerebral plethora for a few hours on the day following its use. It certainly acts as a harmless and quite efficient sedative or narcotic. Another thing in its favor: its employment is compatible with that of tonics, or almost any other medicinal agent which it may be deemed advisable to prescribe.

The following note from Dr. James Jackson, of this city, respecting the use of lupulin, will be read with interest: —

* On Diseases of the Vesiculæ Seminales, p. 89.

atonic cases, has been attended with signal benefit. In recent cases, associated with a sthenic condition of the parts, it does not act favorably. The forms in which it can be prescribed are a spirituous extract made into pills, and an infusion of the powdered kernels with camphor mixture. The latter is the most effective.

℞. Secalis Cornuti, ... ʒ iss.
Aquæ Ferventis, ... ℥ iv.
Infunde.

Dose. — One half, to which may be added two drachms of camphor mixture, to be taken at bedtime. The ergot should not be continued for any great length of time: its protracted use is well known to impair the general health.

In cases of long standing, in which irritation of the prostatic portion of the urethra has become a well-marked feature, the application of the nitrate of silver sometimes answers a valuable purpose in removing the irritable and sensitive condition, or other lesion that may exist in the urethra, at the orifice of the seminal ducts, or in the follicles of the prostate gland. To overcome this preternatural sensitiveness and irritability of the parts, and thus break the chain of morbid phenomena, is an important achievement; and it is claimed by the advocates of Lallemand's plan, that the nitrate will accomplish this work, and it is admitted that in some cases its action is perfectly effectual. But the operation with the *porte caustique* is extremely painful, and also hazardous; it has not the merit of uniform success, and it does not supersede the necessity of other measures. It sometimes gives occasion for their most energetic use, for it is exceedingly apt to provoke a high degree of inflammation, and there is no calculating where it may stop, or what final mischief it may do. The application of caustic gently employed, and not allowed to remain in contact with the parts for more than a second or two, may be a safe and justifiable procedure. It has been thus used many times without any unfortunate results. On the contrary, severe retention of urine, hæmorrhage, and the most excruciating agony, and even stricture, have been produced by the *porte caustique*. All these terrible effects may follow, without one iota of benefit to the malady for the cure of which the caustic is brought into the

field of action. It is no more than truth to say that Lallemand's instrument is now regarded with instinctive horror, and as a barbarous weapon; and its introduction into the urethra of any man should not be attempted until all other resources of surgery have been appealed to in vain.

Injections of mucilage, containing one grain of opium and two grains of the acetate of lead to the ounce, are often attended with good effects, and are worthy of a trial. They are free from danger, they give no pain, and may be repeated every three or four hours during the day. Water employed as an injection has a soothing effect, and is applicable to nearly all cases. It may be used as warm as can be borne, and may be repeated many times in the day. Let it reach the whole length of the urethra. As valuable adjuncts, small doses of cubebs should be administered internally. The inunction of veratrine and belladonna upon the perinæum will sometimes be of service in relieving pain, and allaying the irritable condition of the organs: —

℞. Unguenti Belladonnæ, ... ʒ ss.
Veratriæ, ... ϑ ss. M.

In some instances, the patient suffers from an irritable state of the kidneys and bladder, accompanied with constant dragging pain. Under such circumstances, a combination of the tincture of hyoscyamus and camphor will form a good sedative, which may be administered at bedtime: —

℞. Mucilaginis Acaciæ, ... ʒ ss.
Tincturæ Hyoscyami, ... ʒ j.
Misturæ Camphoræ, ... ʒ ij. M.

Dose. — Three drachms in toast-water or rice-water. This may be repeated in two hours if the desired relief be not realized from the first dose.

The bromide of potassium exerts a powerful sedative effect upon the genital organs; and it has been successfully administered in severe cases of spermatorrhœa, in doses of fifteen to thirty grains, in mucilage.*

* The observations of Thielmann and Pfaffer confirm the above statement relative to the therapeutic action of the bromide.

Quinine, dilute nitric acid, the tincture of muriate of iron, the carbonate of ammonia, and the carbonate of potash are all medicinal agents of well-known properties and utility, and can be variously employed as the condition of the individual may suggest. If the general health should improve under any course of treatment, let that treatment be continued.

While in all forms of spermatorrhœa the most important remedial indication has reference to the amelioration and cure of the constitutional effects of the complaint as displayed both in the physical and the mental fabric, the medical attendant will take good care, first of all, to discover, if possible, and remove, the primary cause.

There is great liability to a return of the malady even after the organs and the constitution generally have been restored to a sound state, and great watchfulness will be requisite to keep the patient from falling into a relapse. If there be reason to suppose that he is capable of successfully engaging in sexual intercourse, — if he be of suitable age to marry, and if other circumstances converge to this point, — then he may with great propriety be advised to assume such relations; for here he will find the most efficient remedy, and will be secure, if he can be anywhere, from those diabolical influences and temptations which gave rise to his disease. It so happens, however, that a majority of young men who are subject to frequent involuntary spermatic discharges are not of suitable age, nor in proper circumstances, to take upon themselves the responsibilities of matrimonial life.

Castration. — Spermatorrhœa may be kept up by a diseased condition of the kidneys, the bladder, the prostate gland, or urethra. In such instances the testicles are not the offending organs; and if the individual were to be deprived of these glands, as a curative measure, success would not attend the operation. Mr. Wilson relates an extraordinary instance in which Sir Astley Cooper was induced to remove one testicle. The operation brought no relief. Repeated cauterization of the urethra was then tried, but in vain. Next, the remaining testicle was removed, but with no alleviation of symptoms. Erections and emissions, both nocturnal and diurnal, returned as soon as the patient recovered from the inflammation that fol-

lowed the operations. The fluid ejected was less in quantity and altered in quality from what it was before castration. A cure was finally accomplished by establishing issues with potassa fusa introduced beneath the integument midway between the anus and commencement of the scrotum. In this case, it was at last supposed that the disease was located in the vesiculæ seminales. The patient was a medical man. For several years he had been the victim of self-abuse, brought on by bad example at school, and to this practice he attributed his infirmity.

CHAPTER XII.

GONORRHŒAL OPHTHALMIA.

THIS affection is of rare occurrence. Some surgeons who have seen much of gonorrhœa and its consequences, have had no instances of the frightful forms of the malady mentioned in standard works, and they regard as almost fabulous the vivid descriptions of cases reported from time to time in the medical periodicals of the day. It seems a little singular that no edition of Hunter contains any allusion to the malady until we come to that by Ricord, who has inserted a brief chapter on the subject from his own pen. Mr. Johnson in his work on gonorrhœa, gives us to understand that the popular idea relating to the affection is in most instances a humbug; such calamitous results as are detailed in some surgical treatises having never been seen in his practice. Dr. Vetch, also, a distinguished ophthalmic surgeon, is skeptical on the same subject. He recognizes contagion as a source of the disease; but denies that the matter taken from the urethra of the infected patient can produce any effect in the same individual. The incorrectness of this theory, however, is amply demonstrated by the experience of other surgeons. Some years ago, and almost simultaneously, two cases, which are in point, occurred in the practice of Mr. Travers at St. Thomas' Hospital in London. In one of these, purulent ophthalmia commenced seven days after a gonorrhœal discharge from the urethra. The inoculation happened thus: While the man was employed in breaking stones, and shortly after micturition, a particle of stone struck his left eye, which led him immediately to rub it with his fingers. Pain and swelling of the eyelids took place immediately, and the inflammation attained to such a degree as to destroy all vision in that eye in the course of an hour. He experienced very severe pain in the eyeball, the temples and occipital region, and also that sensation of animate, ex-

taneous particles on the conjunctiva, so frequently observed in inflammation of that membrane. The cornea sloughed away in a few days, and the lens and a portion of the vitreous humor escaped. In the second case, virulent gonorrhœal ophthalmia was distinctly traced to the local application of matter from the urethra. Both eyes were implicated, and in a brief period total blindness followed. Mr. Travers states that in all cases of gonorrhœal ophthalmia that ever came under his notice, the disease had its origin in the contact of matter transferred from the urethra to the eye. Surgeons almost universally regard inoculation of gonorrhœal pus as the most frequent cause of the ophthalmia. Cases have been known in which the complaint has been caused by the patient washing his eyes in his urine as a collyrium, whilst suffering from blennorrhagia. It is, on the other hand, certain, that in thousands of instances, persons who are careless in their habits put the gonorrhœal matter in direct contact with the mucous membrane of the eyes with impunity. They rub and scratch the lids without any regard to the fact that the fingers may be coated with the virus, but no harm ensues; and direct experiments of inoculating the conjunctiva with the morbific urethral discharge have failed to induce ill effects. Patients are also constantly running their fingers within the nasal passages, and picking the mucous surface, while, from the very nature of things, the ends of their fingers are smeared with the gonorrhœal discharge. And yet not more than one or two cases of nasal blennorrhagia have come to my knowledge. On the contrary, students, who have officiated as dressers in gonorrhœal cases, and washerwomen, who have had charge of the linen of such individuals, have frequently been attacked, in a sudden manner, with the most violent and malignant form of the complaint. In the generality of cases, it is developed only in one eye at a time; if it invades the second eye, it is after a short interval. In nine instances out of fourteen, recorded by Mr. Lawrence, only one eye was diseased. In the most violent cases, the complaint bursts forth with extraordinary fury, advances with rapid strides, and entirely destroys the sight at an early period. Inflammation, tumefaction, and chemosis of the conjunctiva take place, and the lids are soon involved in acute inflammation. The chemosis becomes phlegmonous, forms a close band around

the cornea, which is concealed and constricted, and is soon affected with deep ulcerations and sloughing; the lens drops out, the vitreous humor follows, the iris protrudes, and the remaining portions of the eye collapse within the socket, where they are deeply buried by the closing up of the lids. All this is the work of a few days.

The true etiology of gonorrhœal ophthalmia is still the theme of discordant speculations and opinions. Some of these views are better calculated to bewilder than to instruct. The means of propagation of the virus remain, to some extent at least, a sealed problem, and as such they must continue, until pathological science shall have made greater advances than it has yet done. I shall not attempt the fruitless task of examining all the various theories that have been maintained by writers occupying different stand-points of observation. Experience and common sense attribute the complaint chiefly to the inoculation of the poison derived from the urethra, or from an eye already involved in the disease. So long as the urethra yields a purulent discharge, be it a longer or a shorter time from the commencement of the blennorrhagia, it is doubtless capable of generating an ocular blennorrhagia also. But even this idea is not without its difficulties; for when we consider that in the vast majority of instances in which the urethral pus is brought in contact with the eyes, no morbid action follows, we see that disease is the exception rather than the rule. The ophthalmia is confined almost entirely to the male sex. But very few well-marked instances have ever been seen in female subjects.

Besides contagion, another mode by which blennorrhagic ophthalmia is believed to arise, is found in what is called *metastasis;* a term, the precise meaning of which is not fully agreed upon. In this form of the malady, it is supposed the patient suffers in a manner analogous to those successive attacks which are observed in rheumatism and gout;* and yet in the two latter diseases it is very probable that the vital fluid is in an abnormal state, so that any proof or argument

* "In these complaints there is every thing to show a morbid condition of the blood, which is surcharged with compounds of carbon and of nitrogen, and the local action is the expression and effect of constitutional deterioration." — *Johnson on Gonorrhœa.* See also *Simon's Chemistry of Man*, page 225.

derived from the doctrine of analogy, amounts to little or nothing. Perhaps as satisfactory an example as any of what is understood by metastatic action, is to be found in cases of cynanche parotidea. Here the inflammation, originating or set up in one gland, is translated to another, and the sufferings of the testes in the male, or of the mammæ in the female, are believed to take place in consequence of some mysterious occult agency through the medium of the nervous tissue. And now the query suggests itself, can this with any show of reason be said of blennorrhagic ophthalmia? To me it seems that there is not sufficient evidence to sustain the theory of a metastatic form of this disease.

Sir Astley Cooper derived his notions from the statements of others; and was inclined to favor the doctrine of metastasis. Ricord inculcates the hypothesis that there are three varieties of the affection: the contagious, the metastatic, and the sympathetic. Speaking of the second form, he says: "Abernethy admitted an irritative state in order to explain the development; this is what we understand by metastasis. The origin of the term comes from the wandering character of the complaint; it oscillates, disappearing in one place to reappear in another, and in this respect does it not resemble a rheumatic affection? Do we not admit metastasis in rheumatism?" He argues, that beyond the possibility of contagion, patients are found affected with ocular blennorrhagia following that of the urethra; and that such cases are most frequently related to some rheumatic symptoms. Acton admits of but two varieties, one from contagion, the other from metastasis. Mr. Graves* is inclined to the belief that a species of severe ophthalmia may be generated through the medium of the constitution in persons liable to gonorrhœal rheumatism or arthritis. Mr. Lawrence advocates a similar doctrine. Mr. Walton, referring to the origin of the disease, says: "To metastasis has it been attributed, and what is stranger still, there is 'gonorrhœal ophthalmia without metastasis or inoculation' spoken of. By this is meant that the gonorrhœa and the ophthalmia are one and the same disease, and that without any metastasis or inoculation, one passes into the other. I have no faith in

* Clinical Lectures, 2nd Edition, p. 401.

the metastasis; and as to the last supposed mode or origin of the disease, I receive it as a great twaddle." * Mr. Johnson, speaking of contagion and of metastasis, tells us that his experience induces him to extend a considerable degree of incredulity to the ordinary agency of either. His ideas of sympathy are, that it means nothing, explains nothing, and implies nothing, save that such and such conditions often coexist. In some individuals, he believes there exists a constitutional tendency to the ophthalmic affection.

I take pleasure in transferring to these pages the following communication from Dr. Henry W. Williams, an eminent ophthalmic surgeon of this city. His views are expressed with candor and perspicuity: —

"I am entirely satisfied that a violent form of inflammation usually designated 'gonorrhœal ophthalmia,' may result from a contact of the urethral discharge with the mucous membrane. A few well-attested instances where the disease has been thus produced, are worth more than any amount of negative evidence; and that these instances are not infrequent, seems to be admitted by most of the authorities on ophthalmic surgery. Before citing cases, which have occurred in my own experience, I will refer for a moment to the facts which indirectly corroborate the theory of contagion. Among these may be mentioned the far more frequent occurrence of the disease in men than in women; the different situation of the urethra in the female and her different style of dress rendering her far less liable to the introduction of the discharge into the eyes; while, if the disease were occasioned by metastasis or sympathy, she ought to be equally subject to it.

"Another proof is found in the limitation of the disease, as a general rule, to one eye, which is not true with regard to other forms of severe inflammation of the conjunctiva. The experiments of Vetch, which have often been cited, were by no means conclusive in their character, and if they had been performed in a mode which would have given them more value, the proof would still have been only negative; viz., that *in those instances* inoculation did not take place.

"The same evidence that convinces us that the disease may

* Medical Times, Nov. 4, 1848.

result from contagion, leads to rejection of the theory that it ever arises from metastasis or sympathy. Why should we assume such an origin upon mere supposition, while we have no obvious and sufficient explanation confirmed by facts? Were one of the internal parts of the eye the seat of the disease, we might plausibly ascribe it to metastasia; but the morbid phenomena have their origin and seat in the conjunctiva, which is exposed to constant danger of inoculation from uncleanly fingers, which have become impregnated whilst examining the state of the urethral disease. Were metastasis the cause, we might also expect a subsidence of the local urethral symptoms, as they were transferred, in greater severity, to the eyes; but such is not the fact.

"I select a few of the cases which have come under my observation: —

"Case I. — Some six years since, I saw, while making a visit to the House of Industry with Dr. Buckingham, the physician of the institution, a woman who was acting as one of the hospital attendants. After the visit, she washed the speculum which had been used in examining a patient with gonorrhœa. Within a few hours severe inflammation of the conjunctiva came on, and two days afterwards, when next I saw her, the cornea had given way in both eyes, the iris protruded, and vision was entirely lost. I have never seen a case where the disease was more rapid than in this instance; but one of my friends assures me that he has seen the cornea lost in ten hours from the appearance of the first symptoms, and other similar cases are on record.

"Case II. — In 1851, I saw, in consultation, a gentleman who had a severe attack of ophthalmia, coexistent with gonorrhœa, and where circumstances seemed to fix the moment of inoculation of the eye. The cornea was very largely ulcerated, and perforation imminent; but the eye was saved, and vision is not much impaired by the opacity forming the cicatrix of the ulcer, as the centre of the cornea has become clear.

"Case III. — About two years since I saw a case similar to the last in all its important features. Here the moment of in-

troduction of the virus appeared to be definitely fixed. In this instance the termination was most favorable, although the symptoms were very severe. Very slight traces remain of ulceration of the cornea.

"CASE IV. — A year since I was consulted by a young man residing at a distance, who had fixed in his own mind the time when inoculation occurred. His physician, however, did not believe this. He placed himself for treatment in the care of a hydropath and in a few days the eye was destroyed, the progress of the disease being favored by the absurd remedies made use of.

"I might add other cases; but these appear to be sufficient to illustrate the views I have brought forward.

"I am, sir, very respectfully, your obedient servant,

"HENRY W. WILLIAMS."

"DR. DURKEE."

DIAGNOSIS. — One writer affirms that he has found a symptom in gonorrhœal ophthalmia, which he regards as extremely valuable in a diagnostic point of view, namely, the existence of a small round or oval tumor beneath the skin, peculiarly sensitive to the touch, situated in front of the ear of the affected side, and consisting of an enlarged lymphatic ganglion. This he terms "bubon preauriculaire;" and as he has met with it in nine cases where he was able to trace the disease to direct contact, and as he has remarked its absence in some hundred instances of purulent ophthalmia, not connected with gonorrhœa, he is inclined to look upon it as a symptom pathognomonic of this form of the disease.* No other author appears to believe in the existence of these pre-aural buboes, and it is very generally agreed that so far as relates to mere symptoms, the affection has nothing characteristic which may not exist in other purulent ophthalmiæ. If the patient can detect the potential cause, and trace it to a coexisting gonorrhœa, as in three of the cases related by Dr. Williams, or to contagion derived from a second person, that is another thing. The evidence of its specific character is complete. Experience sustains the opinion, that,

* De l'Ophthalmie Gonorrhoique, — Louvain, 1846. — Vide Egan on Syphilis, p. 110.

apart from a knowledge that the disease is received by inoculation, the physician has no reliable means of diagnosis between this complaint and what is called Egyptian ophthalmia, or catarrhal ophthalmia.

TREATMENT. — From the commencement of the attack, the symptoms present various degrees of intensity in different cases, and of course the character of the treatment, both local and constitutional, must possess a somewhat corresponding variety. If the complaint be ushered in with great violence, and the patient is sufficiently vigorous, blood may be taken from the arm. Lawrence and Erichsen place great reliance upon this method of depletion. Cupping, or leeches applied to the temples or behind the ears, will be indispensably requisite. The frequency of the bleeding must depend upon the urgency of the inflammatory action, and upon the powers of endurance of the patient. In the most vehement and appalling attacks of gonorrhœal ophthalmia, the largest bleedings have been attended with the least success; and at the present day, bloodletting is not carried to any thing like the extent which was once considered proper. It is now well understood that inflammatory action of the mucous membranes, especially if attended with an increased flow of their secretions, requires a much more moderate sanguineous depletion than inflammation set up in other tissues. Hence, in diarrhœa, in dysentery, etc., bleeding from the arm is now an obsolete idea.

Saline aperients are preferable to any others. The individual should occupy a large room, which should be darkened; he should be confined to the bed, with the head considerably raised, and an antiphlogistic regimen must be prescribed and rigidly adhered to. Topical means are of primary importance in this affection. The eye, if saved at all, will be saved by remedies applied directly to it. When, from the history of the case, the medical attendant has arrived at a clear conviction that the attack proceeds from the virus of urethral blennorrhagia, no time should be lost in applying that most active local agent, the solid nitrate of silver, to the conjunctiva of both lids. The under one should be touched first. It should be everted, and the nitrate drawn over the surface so as to whiten it. Before the surgeon lets go his hold of the lid, it is to be washed with

warm water, by means of a small syringe that will throw a fine stream. The upper lid should be subjected to the same treatment. In ten or twelve hours it may be necessary to repeat the application; meanwhile the eye should be syringed every half hour with tepid water, for the purpose of keeping it as free as possible from the muco-purulent discharge, which, in a few hours from the commencement of the ophthalmic symptoms, becomes very abundant, and is a source of constant annoyance. The sulphate of copper, in substance, drawn gently over the inner surface of the lid, in the same manner as the nitrate of silver, is attended with good effect. A solution of the copper may also be applied, in some cases, with entire success. Sometimes it will act favorably, where no benefit is derived from the silver. The strength of the cupreous solution may vary from two to four grains to the ounce of rose-water, which should be applied every eight hours, provided it appears to act favorably. During the night, the lids will become agglutinated, unless something be done to prevent it. They should, therefore, be smeared with rose-ointment.

In the early stages of the attack, warm opiate fomentations will be of service in soothing the inflamed organ; but, if the vascular congestion continue to increase, and the disease be complicated with chemosis, warm applications will do injury. The lids ought to be kept covered with compresses soaked in weak alum-water, two grains to the ounce, or the liquor plumbi, in the proportion of one ounce to eight ounces of water.* The constant application of ice, secured in a delicate linen bag, sometimes acts favorably in checking the high inflammatory action.

The infiltration of the serous or sanguineous fluid between the ocular conjunctiva and sclerotica, and which constitutes the chemosis, performs an important part in the work of destruction, to which the cornea and other tissues are exposed. The entire cornea sloughs away, protrusion of the iris and lens takes place, forming staphyloma, and resulting in total loss of vision. The late Mr. Tyrrell employed scarification so as to

* Some surgeons object to lotions containing lead, zinc, etc., on the ground that solid particles of the salt employed are sometimes found deposited on the inflamed surface, and thus increase the morbid action. They, therefore, prefer vegetable astringents as topical remedies to the eye.

radiate from the margin of the cornea. This practice was based upon the theory that the cornea perished from strangulation of its vessels. Whether this idea is purely theoretical, having no foundation in fact, has been doubted; but the advantage of adopting prompt measures for the removal of the infiltrated matter, does not admit of any question. If the chemosis be severe and œdematous, forming a turgid ring around the cornea, it should first be excised; if it be phlegmonous, and the curved scissors cannot be advantageously employed, it should be scarified. Either procedure will relieve the engorged vessels of the overhanging conjunctiva, and will promote the favorable action of other remedies. After scarifying or excising the membrane, the bleeding may be promoted by warm-water fomentations. Excision causes severe suffering, and ether ought to be used at the time of the operation, and an opiate given afterwards.

When sloughing of the cornea has commenced, the antiphlogistic treatment must be abandoned, and a stimulating and tonic plan adopted. A solution of alum, six grains to the ounce of rain-water, makes a proper collyrium at this crisis. The undiluted liquor plumbi diacetatis is also a valuable topical remedy. Two or three drops are to be inserted under the lids every six hours during the day. It diminishes the secretion and the inflammation, and there is no danger of its doing injury at any stage of the disease. The nitrate of silver, three grains to the ounce of rose-water, may be applied three or four times a day, so that the immediate effect of the application may not pass away before it is repeated. One or the other of the above local applications can be made use of, as the physician may choose; but it would scarcely be good practice to employ any two at the same time. Their use must be persevered in until the purulent secretion ceases, when the disease may be considered as virtually at an end. Care must be taken that none of the discharge from the affected organ come in contact with the eye of the medical attendant or nurse, as it is contagious, and will almost to a certainty reproduce the same disease. Instances are recorded in which the attendant's vision has in this way been suddenly destroyed.

The application of the extract of belladonna around the

orbits or upon the temples should not be omitted. Permanent adhesions of some portion of the iris to the capsule of the crystalline lens, or to the inner surface of the cornea, may form in consequence of the inflammation; and the belladonna will be the surest means of preventing such an accident. After the most violent and dangerous symptoms of the first stage have abated, the morbid process occasionally assumes a passive character. The disease becomes atonic; and the most effectual mode of treatment will consist in supporting the system by generous diet, quinine, and the like. Blisters to the nape of the neck will now be proper, although during a high state of inflammation they would be prejudicial. As a constant lotion during the day, the extract of lead, in the proportion of one drachm to three ounces of water, will be useful; and at night, the following ointment should be employed:—

℞. Hydrargyri Ammoniati, ... gr. vj.
Oxydi Zinci Impuri Præparati, ...
Boli Armeniæ, āā, ... gr. xviij.
Unguenti Rosarum, ... ʒss. M.

The concentrated nitric acid will be found an excellent remedy in cases of long standing. It may be applied to the everted lids by means of a camel's hair pencil, which should be made merely damp with the acid, and drawn lightly and quickly over the mucous membrane. The lids should then be washed in tepid water, by means of a second hair pencil, which should be at hand. The acid turns the surface white, like the nitrate of silver. It can be used every second or third day. In all instances of severe and obstinate character, opiates will be demanded throughout the whole course of the disease. The patient must have nearly the normal amount of sleep, by some means, or he will not progress favorably towards a cure. In regard to mercurials, it may be said that their use is not only of no advantage, but absolutely detrimental, in the early stages. In the more advanced and chronic period, a blue pill, every second or third night, for a few times, and followed next morning by a small saline laxative, will usually be beneficial. In all mild cases of blennorrhagic disease of the conjunctiva, the treatment should also be mild; and a majority of cases are of

this description. An aperient every other day, low diet, half a dozen leeches to the temple occasionally, a small blister behind the ear, astringent injections or collyria to the eye, exclusion from the action of light, warm opiate fomentations repeated three or four times each day, the use of belladonna to or near the affected organ, embrace about the entire list of remedies that we are to rely upon. In conjunction with any or all of these, whatever hygienic plan can be practically enforced should be put in requisition.

CHAPTER XIII.

OPHTHALMIA NEONATORUM.

THE direct application of the acrimonious vaginal discharge to the eyes of the newly-born infant during parturition, is by far the most frequent cause of purulent ophthalmia among this class of subjects. The discharge may consist of leucorrhœal or gonorrhœal matter. When the disorder is consequent upon contagion from the latter, it is of the most inveterate nature. Most of the cases that occur are among the low and dissolute, and if neglected, as they often are, the morbid action soon reaches the cornea, purulent infiltration takes place between its laminæ, and sloughing, followed by an escape of the humors, loss of the lens and of vision, finally ensues. On the other hand, if the child be seen by the physician at an early period, and the case properly attended to, it will be found, ordinarily, to be quite manageable, and recovery will in a short time take place. In the crowded wards of a hospital, where it is impossible for the inmates to have the benefit of pure air and other hygienic conditions, pyophthalmia is much more frequently a severe and intractable affection than in private practice.

The conjunctiva of the upper lid is usually more deeply involved than the other. It is frequently the seat of ulcerations when none exist on the lower lid. The malady is visible in three or four days after the child is born, sometimes later. The lids first swell, and, in a day or two, are glued together by a thick, puriform discharge, secreted from the mucous membrane of the conjunctiva. In some instances, a transverse, red line can be seen on the eyelid before the purulent exudation appears. The firm closure of the lids serves to retain the morbid fluid, and, as a consequence, they become puffy and sometimes greatly distended. The affection is not usually attended with much

pain, unless the child is exposed to a glare of light. This is particularly the case as regards the first stage of the attack. Infants with their eyes entirely closed in consequence of swelling of the lids, accompanied with copious discharge of pus and the other ordinary phenomena of the disease, will pass days, or even weeks, without manifesting signs of distress from the local affection. They nurse with fair appetite, and are much of the time in a quiet sleep. In the more advanced stage of the complaint, when the inflammatory action extends to the conjunctiva of the eyeball and to the cornea, and when the tumefaction of the lids has greatly augmented, the sufferings of the child are severe. In some cases the swelling of the lids themselves from the serous effusion into their cellular texture, is so great that eversion occurs when any attempt is made to examine the eye by separating the palpebræ; or it will take place by the crying of the child, when the whole globe will appear as if pushed forward. There is intolerance of light from the very commencement of the affection even in its mildest form. In the attempt to open the lids, the eyes of the little patient are involuntarily turned upward in the socket, so as completely to conceal the cornea from view, and the physician has no little difficulty in ascertaining the real condition of this membrane. Sometimes the intolerance of light is so great, that when the child opens its eyes voluntarily they are instantly closed with violent spasmodic action, and the lids are squeezed together with great force, attended with a gushing out of the purulent accumulation between them. If it be carried near a window, it will frequently open and close its eyes twenty times in a minute, in the manner here described; and the process will be accompanied by a simultaneous jactitation of the limbs as if affected by a galvanic shock, and the only way in which the child can be at rest, is by being in a dark place. I have now under treatment a case precisely of this kind. The infant is five weeks old; it weighed eleven pounds at birth. It nurses and thrives sufficiently, is very fat, and apparently does not suffer pain from the ophthalmia. The mother states that she has for several months had blennorrhagia.

Treatment. — The character and success of the treatment

will depend not a little on the time when the physician first sees the patient. Should he be called early, a mild course will usually suffice to check at once the further progress of the affection, and to save the visual organ from serious injury. One of the first things to be done is to remove the purulent deposit from the eyes. This may usually be accomplished by gently washing them in tepid water.

Sometimes the lids are so firmly adherent that a soft cracker poultice must be applied for a few hours. As soon as the lids can be separated, mild astringent injections and collyria should be ordered. An injection of one grain of the oxymuriate of mercury to eight ounces of distilled water may be used every hour during the day. The thick purulent matter may not be entirely removed until several repetitions of the injection. It is not expedient to attempt too thorough treatment at the first trials. The local symptoms might thus be aggravated. As soon as the surgeon fairly gains access to the conjunctival mucous membrane, the mother or nurse can be instructed how to proceed afterwards. A few injections, judiciously employed, will be quite certain to bring about a change for the better; and the secretion will soon diminish in quantity. Injections are better than mere lotions, provided they are properly given. Topical measures are mainly to be relied upon, and in a majority of cases satisfactory results will follow.* A weak infusion of chamomile, or a weak decoction of white oak bark, makes a suitable injection, and either may be used in alternation with the one just mentioned. A solution of the nitrate of silver, in the proportion of four grains to eight ounces of distilled water, may be advantageously applied to the diseased membrane two or three times a day. The eyes should be thoroughly cleansed with warm water before using the solution, a few drops of which are to be inserted at the outer canthus. Alum makes a valuable collyrium, three grains to the ounce of soft water; also, the liquor plumbi greatly diluted. The following lotion, due to Mr. Wharton Jones, is extensively used in European hospital prac-

* Mr. Critchett, Surgeon of the Royal London Ophthalmic Hospital, says: "Local stimuli should be applied early, often, and thoroughly to the conjunctival surface in purulent ophthalmia of infants." — *Lancet for August*, 1854.

tice for various forms of purulent ophthalmia and chronic conjunctivitis: —

℞. Cupri Sulphatis, ... gr. ij.
Vini Opii, ... ʒj.
Aquæ Destillatæ, ... ʒvij. M.

Fiat lotio. It may be applied freely with a soft camel's hair brush three times a day. — *Association Medical Journal*, 1856.

The following preparation I have employed for several years in ordinary cases of the disease under consideration. There is no local remedy which I have occasion to regard with more favor: —

℞. Hydrargyri Ammoniati, ... gr. vj.
Oxydi Zinci Impuri Præparati, ...
Boli Armeniæ, āā, ... gr. xij.
Unguenti Rosarum, ... ʒss. M.

The wine of opium constitutes a suitable local remedy in chronic cases, after the purulent discharge has nearly ceased. The conjunctiva is in a relaxed condition, and the vinous preparation will serve as a valuable stimulus and anodyne. It should be applied to the parts three times a day. Bleeding, even by means of leeches, is a practice never required in these cases. Small doses of magnesia, or if the child has a jaundiced skin, as sometimes happens, of hydrargyrum cum cretâ, may be ordered every second or third day. If much febrile action be present, a few drops of the dulcified spirit of nitre in sweetened water, and repeated according to circumstances, will be of service.

CHAPTER XIV.

GONORRHŒAL RHEUMATISM.

MEDICAL science has not as yet shed any light upon the specific cause of this disease. But the circumstances which appear to bring this cause, whatever it may be, into active operation in certain individuals, are for the most part within our comprehension. The practitioner usually ascertains upon inquiry that the patient in whom the affection is developed as a complication of urethral discharge, possesses some marked peculiarity of temperament, — very probably the lymphatic; or has a hereditary tendency to rheumatism or gout; or perhaps is suffering from dyspepsia or constitutional debility; or has exposed himself to some adverse agency, as cold, and wet, and wind. It is frequently associated with orchitis. It occasionally seizes upon the fleshy parts of the frame, as the shoulders, the intercostal muscles, the hips, the thighs, soles of the feet, etc. But the most usual, and by far the most important and inveterate, form which the complaint assumes, is that which is known under the designation of articular or gonorrhœal rheumatism, or gonorrhœal inflammation of the synovial membranes. Some men are sure to have articular rheumatism whenever they contract blennorrhagia; and it is by no means uncommon for patients who have the synovial inflammation to have, simultaneously, some form of ophthalmia. Sir Astley Cooper mentions that the first case of gonorrhœal rheumatism he ever met with was in an American gentleman, who had had gonorrhœa twice before he saw him. During both these attacks he had double ophthalmia and articular rheumatism in both knees; and the third visitation of blennorrhagia was also remarkable for the same complications.

To the wakeful and discriminating genius of Sir Benjamin C. Brodie, the profession is indebted for the first description of this complaint, a few cases of which are to be found in his

"Diseases of the Joints." This singular affection, like that which diffuses itself among the muscular and fibrous tissues as a complication of blennorrhagic discharge, may come on at any period; although it seldom shows itself until the latter has materially declined or entirely ceased. The knee is by preference most frequently the seat of the disorder, but other superficial articulations are liable to be attacked. The synovial sheaths of the extensor tendons on the wrist and instep are sometimes involved. In most instances, only one joint is implicated at a time; in other cases the disease invades several articulations at once. The inflammatory action is suddenly lighted up, and without previous warning, is not particularly violent in its features, is wont to linger as a subacute affection for an indefinite period, to the discomfort of the patient and the embarrassment of the physician. In consequence of synovial effusion, the joint becomes much enlarged; and if the complaint occupy the knee, the fluctuation of the effused fluid can easily be detected at an early period. The effusion remains for several months after the other symptoms have disappeared. In spite of every exertion of the medical attendant for its removal, the swelling yields with great reluctance; and often, on slight provocations, returns with surprising rapidity, first in one knee, then in the other; and in this way the patient is tormented for years. There is ordinarily but little constitutional disturbance. The integument covering the joint preserves its natural temperature and color for a considerable time, even when there is a great increase in the size of the joint. In some rare instances, the accompanying symptoms become general and severe. The pulse is full and quick, the stomach and other organs of digestion sympathize, and the patient falls into a decline. In other individuals, the inflammation will proceed through its whole course without being attended with any symptoms of effusion. In still other cases, endocarditis and effusion into the pericardium have taken place; also compression of the spinal cord and of the brain, and which appeared to follow the articular affection. The usual symptoms of acute rheumatism are seldom developed, and when they are manifested, they are moderate in degree; the constitutional disturbance being quite trifling, when contrasted with the severity of the local arthritic affection. Mr.

Johnson thus expresses himself in regard to this disease: "I am disposed to imagine that there is not quite so much of the peculiar and specific about gonorrhœal rheumatism as is commonly believed. It has all the features of what is properly called 'rheumatic gout,' and I have seen no case which, the gonorrhœal discharge away, could readily be distinguished from it. Rheumatic gout is an inflammatory affection of the synovial membranes, erratic in its habit, rather giving rise to rapid effusion than to violent inflammatory action, chiefly affecting the articulation of the knee, sudden in attack, tedious in course, and treacherous in recurrence. What are these but the characters of gonorrhœal synovitis?"

Suppuration has taken place where the patient has received the most judicious treatment, and has in all respects been under the best hygienic influences. Suppuration, however, or the formation of abscesses within or around the joint, is a rare accident.

Diagnosis. — The almost total absence of pain, the normal aspect and warmth of the skin, and the apyrectic condition of the system usually attendant on the complaint in its early stages, are to be set down as the most reliable characteristic marks which it exhibits, and may serve, when taken in connection with the history of the patient, as sufficient grounds for separating it from ordinary rheumatism, and from those neuralgic and nocturnal pains which a person not unfrequently experiences in the latter stages of constitutional syphilis. Instances, however, arise, in which a differential diagnosis is difficult and even impossible; but fortunately, as regards the treatment, this is a circumstance of small moment.

Treatment. — It was once considered proper surgical practice in cases of gonorrhœal rheumatism, to court a return of the urethral discharge, if that discharge had disappeared or had materially diminished on the accession of the synovial disease. And in order to reëstablish the blennorrhagia, it was the custom of some practitioners to irritate the canal by having the sick man wear a bougie for a portion of each day, or to inoculate the mucous membrane with the infectious matter borrowed from another person. The same course was

advised in ophthalmia arising in connection with urethritis. The idea of metastasis suggested these plans. Whether the theory be sound or not, the inoculation of the urethra with gonorrhœal virus or even the introduction of the bougie for the purpose of exciting and irritating the urethra anew, is now reprobated by all judicious members of the profession. Were it within our power to obtain the history of a large number of instances of rheumatism directly related to gonorrhœa, it would probably be found that the influence of the former upon the latter, in ordinary cases, is not of a very decided character; and that the decrease or total cessation of the discharge, when it does take place, is merely an incidental circumstance.

Although the complaint is apt to be one of great obstinacy, yet it is in the power of the physician to do much to relieve the severity of the symptoms, and sometimes to cut short their duration. In the commencement of pain and swelling of the joint, the patient should be directed to take his bed. The treatment must of course be both local and constitutional. Leeches should be applied to the affected joint. The quantity of blood to be extracted must be in proportion to the violence of the inflammatory action and the ability of the patient to sustain depletion. The employment of general blood-letting will rarely be called for. The abstraction of a small quantity of blood by means of leeches, repeated at short intervals, will be the safer practice. In a majority of cases, the patients we have to deal with, although young or in the meridian of life, are far from being robust. Not a few of them are of strumous diathesis, or have impaired their constitutions by imprudence, and are unable to endure loss of blood to any great extent. Warm fomentations, evaporating lotions, and vapor baths to the joints, should always be used several times in the day; also large poultices, containing laudanum, belladonna, or the American hellebore, should be applied at night. In many instances of articular rheumatism, I have known veratrine applications bring alleviation of pain in a very short time. I am disposed to place a higher therapeutic value on poultices containing a large portion of the pulverized veratrum viride than on either of the other agents mentioned in this connection. The poultice should be large enough to cover the whole joint, and be

put on as warm as can be borne. If there be much arterial excitement, the saturated alcoholic tincture of the veratrum may be administered internally. This preparation has been used quite extensively by physicians in various parts of the country, and its efficacy as a diaphoretic and arterial sedative abundantly proved. Professor Carnochan, of New York city, has prescribed it successfully in many cases at the Emigrants' Hospital. In one instance of articular rheumatism, by the exhibition of the saturated tincture in doses of from five to eight drops every three hours, a pulse of one hundred and twenty was reduced to thirty in fifteen hours. I have recently attended a lady who had a pretty severe attack of articular rheumatism, which migrated from joint to joint during a period of several days. The veratrum was given in tincture, in doses of four to eight drops every six hours, according to the urgency of the symptoms. In this instance, the remedy appeared to act promptly in allaying pain, controlling arterial action, and procuring sleep. No opium in any form was used. The Drs. Cutter, father and son, two highly intelligent and reliable physicians of Woburn, near Boston, give ten drops of the saturated tincture of veratrum every two or three hours in severe cases.*

When the disease has existed for some time, blisters are among the most efficient local means that can be employed. Or, if the physician prefer, the surface can be kept thoroughly irritated by frequently painting it with the compound tincture of iodine. This will be found a useful substitute for blisters, where the latter disturb the urinary apparatus. Compression, by means of imbricated bands of adhesive plaster and a narrow roller, is another method by which the fluid remaining in the articulation may be gradually absorbed. The electro-magnetic battery is likewise worthy of a trial when the complaint has assumed a chronic form; also, frictions, with mercurial ointment, — care being taken to avoid salivation. Long-continued rubbing with the bare hand, or with a hair mitten, should likewise be practised many times in the day.

The wine of colchicum, tincture of sanguinaria canadensis,

* Since the above was written, an important communication prepared by a committee of the Middlesex East District Medical Society, Massachusetts, relative to the veratrum viride as a safe and valuable arterial sedative, has appeared in the American Journal of Medical Sciences, for October, 1858.

the ammoniated tincture of gum guaiacum, the iodide of potassium, the nitrate of potash, calomel and opium, have all been tried, sometimes with satisfactory results, sometimes with the very reverse. Where the febrile action is considerable, and the patient of a plethoric habit, brisk cathartics are demanded, and ought to be repeated every four or five days. Their employment may be persevered in for a long time. But in ordinary cases, and where the affection has become chronic, and the patient is in rather poor general health, cathartics will not be indicated. They will do injury. Mild aperients, tonics, alteratives, diaphoretics, and a generous diet will be suited to the condition and wants of the individual.

A residence in a warm climate, with ordinary attention to all the rational principles of health, will sometimes result in the recovery of the patient, after the physician has exhausted the entire treasury of all remedial agents that have ever been tried in this disease.

CHAPTER XV.

VEGETATIONS.

These morbid excrescences were once, but are not now, regarded as the product of the syphilitic poison. They are sometimes the result of irritation from the deposit of gonorrhœal matter; and sometimes they are generated by the combined agency of moisture, heat, and filth, especially in uncleanly females, who may or may not have some vaginal discharge at the same time. They differ in appearance, and sundry terms have been employed to designate them, according to the aspect they present to the eye or the fancy of the physician or surgeon; as, warts, vegetations, tubercle, cauliflower, raspberry excrescences; and, when seated between the nates or on the inner surface of the prepuce, where they are subjected to constant pressure, they have been compared to the crest of the cock. The situations in which they are chiefly found are the meatus urinarius, the glans, the mucous membrane of a narrow prepuce, and at the junction of the two preputial surfaces; when they select the latter site and are allowed to remain, they fill up the orifice so as to impede the escape of urine, and otherwise interfere with the functions of the penis. In the female, they come upon the vaginal surface, vulva, nymphæ, orifice of the urethra, and upon the inner aspect of the labia. They usually begin to appear in the lower part of the vagina, near its orifice, and extend upwards along the junction of the mucous membrane and skin towards the superior commissure. They grow with great rapidity. Even if excised with the knife or scissors, they immediately return, provided the blennorrhagia continues; and, if undisturbed, they soon become large and vascular, occasioning more or less hæmorrhage and severe pain when cut off. They are generally soft and spongy when situated in these parts, and constitute one of the greatest inconveniences that attend gonorrhœa in the female. In some in

warty excrescences spring from the walls of the vagina at a little distance from its orifice, and their presence will keep up a discharge for a long time after the blennorrhagia, in which they originated, has ceased. The patient, perhaps, makes no complaint; but if she engages in any active exercise, the discharge will probably return, and be as abundant as ever, and the ordinary treatment for arresting it will be employed with little or no relief. Under these circumstances, if the speculum be used, the locality of these verrucæ can be ascertained, and they can be removed with the ecraseur, or be destroyed by the application of the acid nitrate of mercury.

In both sexes, vegetations collect around the verge of the anus, on the perineal integument, and within the cleft of the nates, where the natural moisture and other irritating matters are retained. In the recent state, and while lubricated with the substance exuded from the mucous surface, they are comparatively soft and white; if they remain for a considerable time, and come in contact with the air, they dry up and become quite hard and of a dark color. Sometimes they are broad, thick, and flattened; or they may have a small pedicle or stem, by which they are attached to the corium from which they germinate, and present a form not unlike a grain of wheat or rice. Their anatomical structure consists of a thick, firm investment of epithelial laminæ and newly-formed cellular tissue, which is usually well supplied with blood-vessels and nervous loops, and hence the pain and bleeding when the growths are removed with the scissors. The epithelium is not perforated, but is pushed up without being broken as the vegetation grows. I have seen them in male and female subjects, who were and always had been otherwise exempt from disease in the parts occupied by these morbid growths, but who had no practical notions of personal cleanliness. It is by no means difficult to believe that such individuals are just the ones to furnish the elements for the formation of these adventitious appendages. The wonder is that they do not occur more frequently. A few months since, an Irish woman called upon me to be cured, she said, of a wart as big and as black as "a cockroach," and which had troubled her for about one year. The nal mass was situated on the pouch at the fourchette. nall papilliform warts were seen pullulating in the

immediate neighborhood of the larger one. They had all been destroyed several times, and all quickly returned. The patient stated that when they began to trouble her, "they were white as any snow." She was sufficiently filthy to suggest the idea that these extraneous bodies were the legitimate offspring of the soil that nourished them. In this case Goulard's extract of lead relieved, but did not cure, the difficulty.

I am aware that Vidal considers these vegetations as syphilitic in their origin; and he disbelieves that any other cause can give rise to them. This theory is repudiated by nearly all syphilographers. It is highly probable, to say the least, that they may and do exist without any constitutional taint of a specific character. They are incapable of generating any venereal affection; are seen in their worst forms in the female, and, like warts on the hands of children, spring from causes which it is not easy to explain. Mr. Acton says: "In females, warts depend upon gonorrhœa or irritating discharges; the secretion of chancres often produces them, not, I believe, in virtue of any specific action, but from its irritating qualities; and modern authors have ceased to consider them a secondary symptom. It is of great importance in medical jurisprudence that these points should be properly appreciated."

Vegetations of a non-specific nature are now and then complicated with true condylomata, which proceed from a venereal cause, and which belong to the circle of secondary symptoms. When these condylomatous excrescences exist, other syphilitic phenomena will be present also; or the history of the case will show that they have existed at some former period; and the physician will seldom have any difficulty in assuming the right position as regards the diagnosis. Some authorities make this distinction, — that simple warts are always pedunculated, while those that are really syphilitic are always sessile and seated on a broad base; and the granular patch is of a dirty red or whitish hue, rather flat than prominent; secretes a watery, yellowish discharge, and having a most disgusting odor. But nothing short of a truthful history of the case can furnish a perfectly reliable basis, on which to establish a correct diagnosis. Mere appearances may deceive the most practised eye. This they always have done and always will do.

TREATMENT. — If the warts are in men, and situated on the inner surface of the prepuce, their removal is best accomplished by circumcision. If located on the glans, or on the reflected portion of the preputial mucous membrane, they can be snipped off with a pair of flat curved scissors, and afterwards the radical portion be touched with some sharp escharotic, as acid nitrate of mercury or the concentrated nitric acid. If very numerous, it will hardly be prudent to attempt the destruction of the whole by a single operation either with the knife or caustic, but let the work be more gradual. Excision is a painful procedure to the patient, and will rarely succeed alone in annihilating these disgusting formations.

As a constant application, the liquor plumbi, somewhat diluted, is one of the best. It may be used on dossils of soft English lint. When the warts are not situated on the prepuce, they can generally be removed and be prevented from returning, without recourse to the knife or scissors. In addition to the astringents and escharotics mentioned above, the bichloride of mercury will sometimes act in an efficient manner. It is to be used in the proportion of two grains to the ounce of water, as directed for Goulard's extract. The chloride of zinc solution is preferred by Mr. Emerson, surgeon in the Westmoreland Lock Hospital. In a communication to Dr. Egan he says: "I would wish to impress upon you the high value I attach to Sir William Burnett's solution of chloride of zinc, in all cases of vegetations and unhealthy growths, the result of inattention to cleanliness, and the accumulation of irritating vaginal secretions. Indeed, such is my opinion of its utility in these cases, that I believe it cannot be dispensed with. I consider the solution the most effectual, and, in some instances, the only, application (the knife excepted) that can be relied upon with certainty for the cure of the disease." The zinc solution may be applied occasionally without being diluted; but for constant use the strength should be from two to four drachms to eight ounces of water. When the warts are clustered about the anus or the perinæum, a powder consisting of equal parts of savin and burnt alum, makes an excellent application. These new formations, when they occur on the external integument, are limited to distinct portions of the papillary stratum of the true corium, or of the sebaceous follicles. They are often known under the name

of acuminated condylomata, and have very properly been termed *papillomata*. The projections which constitute the papilloma sometimes terminate in acute points; sometimes in truncated, clavate extremities; and are in some instances supported on a slender neck, or on a broader basis; occasionally quite a number, grouped together, rise on a common stock, or, crowded more closely, constitute a group, separated by lateral furrows, which give them a cauliflower appearance.*

Case. — A young printer, unmarried, came to me a few months ago with numerous pedunculated warts situated around the anus and along the perineal integument. Five or six years since, he had a chancre on the glans penis. It was readily cured, and his general health never suffered in consequence of this primary accident. The warts began to appear seven or eight months before I was consulted. The largest were the third of an inch, the smallest the tenth of an inch in length. The patient was directed to wash the parts thoroughly in warm water and soap, and to apply the powder of savin and alum morning and night. In three weeks the excrescences were completely destroyed and did not reappear. No other treatment was used. This is a fair specimen of the effects usually derived from this powder. In many instances the locality of the vegetations renders its application impracticable; but where it can be used conveniently, its agency in destroying the abnormal growths is rapid, without being very painful. Escharotics all act much in the same way; and in ordinary cases there is no great choice in them. In some instances, however, there is a preference arising from the character, locality, and extent of surface occupied by the vegetations. If they are flattened and exist in large groups, whether on the cuticular or mucous surface, and excision be not admissible, the acid nitrate of mercury will act as favorably as any topical remedy. A convenient method is, to moisten the end of a glass rod or a camel's hair pencil with the fluid. A quantity sufficient to turn the surface of the vegetations white, is to be used, and no more. The process is somewhat painful, but perfectly destructive to

* A minute description of these papillomata may be found in Wedl's Pathological Histology.

the morbid growths. If the cluster be very large, it will not be best to treat the whole at one time; but the surgeon should wait four or five days, and then attack another portion. After the application of the acid, lint, soaked in warm poppy-water, ought to be placed in contact with the part, and the patient should remain quiet for some hours.

A solution of chromic acid has lately come into use in the treatment of warts of the genital organs and other parts, whether resulting from syphilis, gonorrhœa, or other irritating discharges. The strength of the solution should be in the proportion of one hundred grains of crystallized chromic acid to a fluid ounce of distilled water. It is best applied by means of a pointed glass rod as directed for the use of acid nitrate of mercury. Only so much should be employed as will saturate the diseased growth. Care must be taken to avoid the adjacent healthy tissue; for although the solution is not sufficiently powerful to destroy or even vesicate the mucous surface, it may provoke an unnecessary inflammatory action. Any superfluous acid may be removed by a piece of wet lint. The acid gives but a trifling amount of pain. Warts situated on the vulva, labia, perinæum, anus, prepuce, glans, etc., may be treated with it, with safety and success. One application is generally sufficient. A purulent discharge ensues, and under its influence the morbid excrescences speedily waste away. The proper dressing to the parts after the application of the acid, is dry lint, or lint wet with diluted lead-water. If the warts are numerous, the same rule should be observed in attempting their removal as was suggested in the employment of the acid nitrate of mercury, that is, to attack a part of them at a time.

Whatever local measures are put in force for removing the disease, whether in the male or female, the patient must not forget that after the cure has been completed, a recurrence is to be apprehended, unless the most scrupulous attention to cleanliness be observed.

CHAPTER XVI.

BLENNORRHAGIA IN THE FEMALE.

THE SPECULUM. — Of late years, the speculum has been resorted to as an important means of diagnosis, in morbid affections that invade the vagina and uterus; and the clinical demonstrations which its use is capable of affording in a variety of cases cannot be too highly appreciated. More than two thousand years ago, this instrument was employed as a means of ocular inspection; but through agencies, and for reasons not now apparent, it drifted out of the current of medical and surgical practice, and for many long centuries remained in a state of oblivion, until about sixty years ago it was again brought into limited use by M. Recamier, of France; and still more recently through the active genius of Ricord, it has become one of the most popular and efficient means for obtaining an exact knowledge of uterine lesions. And considered in a therapeutic point of view, its merits, in certain cases, can scarcely be exaggerated. Among what we term in medical parlance female diseases, and which we are called upon to investigate and treat, blennorrhagia, proceeding from some portion of the generative system of the female, is one of the most common; and by the use of the speculum, the practitioner can arrive at a degree of certainty in regard to the pathological condition of the parts which it is impossible to acquire through the blind medium of digital examinations. The latter, under the most favorable circumstances, give but an imperfect knowledge of any morbid changes that may take place. The sense of touch needs the assistance of the eye. The advantages of instrumental explorations do not consist merely in bringing to view any particular lesion that cannot otherwise be detected. They relate directly and chiefly to therapeutic measures. Certain modes of treatment, certain topical and constitutional remedies, possessing specific qualities, adapted to particular functional or structural derangements, and to no others, are thus suggested

to the judgment by what the eye has seen. In the same manner, an examination within the buccal cavity, by means of a spatula, leads to definite conclusions in regard to any morbid condition of the mouth and throat. Cases not subjected to such inspection must necessarily be conducted, in some degree at least, according to the doctrine of chances. No sagacity or experience is sufficient to guide the physician in the best way, independently of the speculum. Neither the exact locality nor the precise nature of the abnormal condition can be recognized in a satisfactory manner; and the line of treatment must be laid out and pursued under no little disadvantage. Here the blind lead the blind; and although neither may literally realize the catastrophe spoken of in connection with this implied ignorance, it is certain that both must suffer from it in more ways than one.

There are circumstances and conditions in which instrumental examinations cannot be made. To employ the speculum in severe inflammatory gonorrhœa, accompanied with tumefaction of the labia, would be an abuse of the instrument and of the patient. The surgeon must suspend its use until the acute symptoms have been subdued. After this, the speculum should be employed for the purpose of ascertaining whether any erosions, vegetations, chancres, or ulcerations coexist with the blennorrhagic discharge. It not only gives clearness and precision in diagnosis, but it can be employed as a surgical guide to render more facile the application of caustics or escharotics, in the use of which caution and exactness of manipulation are necessary. The speculum may, without impropriety, be regarded as suited to a numerous class of females who require medical and surgical treatment, and who are always anxious to be cured in the shortest time possible.

With the instrumentalities now at his command, the intelligent practitioner asks only for a few days to accomplish a cure of maladies, which, while the speculum was ignored, were subjected to a tedious and oftentimes random treatment of many weeks or months. Several kinds of speculum are in vogue. The bivalve is generally preferred. The common, conical form is easier to manage, throws a sufficient quantity of light upon the part that is brought into view, and usually answers every purpose.

Diagnosis of Blennorrhagia in the Female. — The investigation of this subject is often beset with difficulty and embarrassment. The impossibility of determining in all cases between a gonorrhœa resulting from infection and one that has no such origin, is acknowledged by all practitioners. Such instances are occasionally met with in the male subject, but in the female they are very frequent. Especially do they occur in women who have long been troubled with some chronic secretion of obscure character, assuming different appearances at different epochs; being at one period mucous, at another, muco-purulent, or muco-sanguinolent; and so on, through still other transformations; sometimes attended with but little inconvenience, at other times fretting and irritating the surfaces over which it flows. To these chronic cases the difficulty of discrimination is chiefly confined.

Neither chemical nor pathological investigations have as yet furnished any thing like the requisite data by which we might decide in any given case as to the contagious or non-contagious properties of these abnormal exudations. Were we at liberty to make experiments in the inoculation of these vitiated secretions, we should still fail to have any absolute criterion, or to acquire any incontestible evidence in the premises, so far as relates to the true gonorrhœal element derived by contagion from another. For it must be admitted that the vaginal secretions of some females who are perfectly chaste and entirely free from all gonorrhœal taint, *may* give rise to urethral inflammation and blennorrhagia in *some* men. Leucorrhœa has the credit of doing this. The same power is claimed in behalf of normal menstrual fluid. There are not a few able writers who have implicit faith in the ability of both these secretions to provoke a blennorrhagic urethral discharge. Candor, indeed, compels me to go farther, and to admit that an acrid condition of the ordinary mucous moisture, — the epithelial exudation from the uterus or the vagina, — may generate a gonorrhœa in the male. But this male, in my opinion, must be endowed with some peculiar idiosyncrasy, some remarkable aptitude, which predisposes him to receive the infection. Thus, extraordinary conditions appertaining to both parties at the same time, may occasion non-specific symptoms in a man, that cannot be distinguished in their severity, duration, or complications, from

those phenomena attributable to contagion derived from a woman, who has, and who gives, a veritable blennorrhagia at the moment of sexual congress. Such instances are, however, exceedingly rare. They will do to be mentioned as mere exceptions to the general rule, and this all they are worth. All these contingencies, these exceptions, and these extraordinary circumstances, demonstrate the paramount importance of having a full and truthful history of the case presented to the medical attendant for his careful consideration. If, short of such a history, he attempts to form an opinion, he will find himself sometimes, and when he least expects it, leaning upon a broken staff. Practitioners of no little tact and experience have been placed in such a predicament.

Professor Bennett, speaking of inflammation of the vagina and vulva, says that he considers the secretion of a great quantity of pure pus from the vaginal mucous membrane as all but pathognomonic of blennorrhagic inflammation. "An important fact in connection with vaginitis," says he, "to which I have already drawn attention, is, that it seldom exists for any great length of time as a primary disease, whether purely inflammatory or blennorrhagic, without extending to the mucous membrane of the cervix. Hence it is, that blennorrhagia, a disease in which the inflammation no doubt commences in the vagina and vulva, the cervix is nearly always, after a short time, found to be congested and inflamed, and eventually, if the disease is not cured, ulcerated. Like those who have preceded me, I am unable to point out any absolute means of distinguishing between simple inflammation of the vagina and blennorrhagic inflammation, although I am convinced that a difference does exist. This, indeed, is proved by the fact that simple inflammation of the vulva and vagina does not, as a general rule, communicate blennorrhagia to the male, although I admit fully that an occasional exception may take place. My dispensary patients are nearly all married or single women, amongst whom I seldom meet with syphilitic disease, and in the higher ranks of life it is still more rare, not existing in one uterine case out of fifty for which I am consulted. Nearly all these females in both classes of the community are suffering from vaginitis, as described above, in a more or less acute form, when they apply for advice; and yet although they have generally lived with their husbands

up to the time they consult me, the wife has nearly always a tale of sorrow to record; her husband is wild, dissipated, keeps bad company, sleeps out at night, and generally speaking, has confessed to her that he has exposed himself to contagion. The only anatomical differences, however, which I have observed in blennorrhagic inflammation, are the very great quantity of pus secreted, the extreme redness, congestion, and swelling of the mucous membrane, the occasional extension of the inflammation to the urethra, and its extreme intractability to treatment." *

Young female children are sometimes troubled with a diseased condition of the genital organs, presenting symptoms very much like those arising in the female of adult age. The trouble usually commences in the *præputium clitoridis*, which, from some accidental cause, becomes inflamed; and the affection afterwards extends gradually to the labia, nymphæ, and perhaps to the vagina. In some instances, small ulcerations form here and there upon the mucous membrane, which yields very little purulent discharge. In other cases, erosions take place, or there is an aphthous condition of the parts, attended with a serous exudation more or less copious, and irritating to the surface with which it comes in contact. In still other instances, but of very infrequent occurrence, a leucorrhœal discharge is noticed, apparently from the vagina, while the other associate organs remain healthy, and the child is otherwise well. In none of these cases do the symptoms assume a specific character. They may awaken alarm in the mind of the mother, and sometimes suspicion may be excited that foul play has been practised upon the child by a person having a gonorrhœal or venereal affection, when such is not the fact. A few months since, I was requested to examine a little girl about five years old. She had muco-purulent discharge from the vagina, — the external organs being free from disease. The child was sent to Rainsford Island Hospital. The symptoms were of a mild type, but several weeks passed before a cure was accomplished. By the parents the trouble was thought to have originated with a servant girl, of bad repute, who slept with the patient. A similar instance came under my observation several years ago, in a child two years of age,

* Bennett on the Uterus, p. 179.

and requiring treatment for more than two months. In this case, there did not seem to be ground of suspicion against any individual, nor was the cause of the difficulty apparent. Dr. R. H. Salter informs me that he has recently had under his charge two female children, one aged eight years, and the other eleven, affected with urethral and vaginal blennorrhagia. The mother was under his treatment for the same disease at the same time. The only way of accounting for the occurrence of the complaint in the children was, that the mother used the same napkins for wiping the children, after bathing, which she had just before employed on her own person. A few years since, two similar instances were reported by Dr. Burke Ryan before the London Medical Society. Two children, sisters, aged respectively one and four years, were found laboring under a profuse vaginal discharge. There was high fever; the parts were much swollen, with great pain in micturition. The explanation as to the mode of communication of the disease to these children was this: It was ascertained that a young woman in the house had profuse gonorrhœal discharge; that she washed herself in the same vessel used for washing the children; that she used about her private parts the same sponge which was employed for them, and sat upon the same vessel which they did.*

As the foregoing cases are well authenticated, they are important in reference to matters of medical jurisprudence. Similar accidents might happen to females of adult age.

If a young female with mucous or purulent discharge showing itself at the external genital organs, is presented for examination and treatment, it will usually be an easy matter to determine whether any attempt at intromission of the virile organ has been made by an adult male. Any such effort will be very likely to be followed immediately by inflammation and swelling of the soft and delicate structures of the labia and nymphæ; and laceration, or other injury, about the entrance of the vagina, will be detected. If no marks of violence can be discovered, the morbid condition of the parts must be attributed to some other cause — as the accumulation of filth, irritation from the clothing, or some intestinal derangement.

* London Medical Gazette, April, 1851, p. 744.

SITUATION. — Blennorrhagic inflammation, attended with a specific discharge, eminently contagious, attacks the mucous membrane of the vulva, the vagina, urethra, and uterus. In very mild cases, the abnormal action is confined to this membrane; but, in most instances, it penetrates into the subjacent tissues. It is usually limited to some portions of the genito-urinary apparatus, although in certain cases which have been neglected, or which, from some special circumstances, resist the ordinary therapeutic measures, the malady propagates itself throughout all the organs. Among the ulterior accidents resulting from blennorrhagia, may be mentioned cystitis, nephritis, inflammation and obliteration of the Fallopian tubes, ovaritis, sterility, peritonitis, inflammation and suppuration of the inguinal lymphatic glands and of the labia majora, chronic enlargement of the nymphæ, etc.

VARIETIES. — As the morbid process takes place in certain localities, while other portions of the genital organs are not implicated, the disease may very properly be considered under several varieties, according to the situation it occupies. The vulva and vagina are most frequently the seat of catarrhal inflammation.

SYMPTOMS. — Among the earliest symptoms which announce the approach or actual existence of the disorder, are, a peculiar tickling and itching sensation in the parts, amounting, in some women, to a sort of temporary nymphomania. The labia majora are swollen, and upon separating them, the whole mucous surface thus brought to view is found to have undergone a material change. An erythematous redness, with a turgid condition of what is called the vulvar circle, is manifest. Serous infiltration takes place into the cellular tissue of the nymphæ, greatly distending these bodies, which protrude through the external labia, and become œdematous, constricted and extremely sensitive. The patient is scarcely able to walk about, or even to sit down, on account of the local suffering she experiences. The bladder is disturbed by sympathetic irritation; micturition is frequent and painful, although no urethritis exists. The tumefaction of the neighboring parts interferes with the free exit of the urine, the diffusion of which,

over the inflamed surface, causes no inconsiderable smarting and scalding. The inflammation soon reaches the vagina and spreads in circumscribed patches, or perhaps extends throughout the whole of its mucous membrane. Its numerous papillæ and follicles become hypertrophied; its walls contract and present a granular aspect; and if the inflammation reach a high point, abrasions of the epithelium are here and there seen in the form of lenticular spots, which give to the mucous surface a salmon-like appearance; and if the force of the diseased action be not checked, ulcerations are formed. These bear considerable resemblance to diphtheritic venereal sores; but they are more superficial than the latter, and in many instances, when examined with the speculum, they can be seen in their different stages of development. They yield to treatment more readily than any syphilitic affection which has an *apparent* affinity or likeness to them.

Simultaneously with the preceding manifestations, a copious mucous discharge appears. This very soon becomes puriform, and is poured out in great profusion. Sometimes a vesicular eruption, induced by the irritating qualities of the blennorrhagic secretion, breaks out upon the perineal integument, the inner aspect of the thighs, and other neighboring parts. When the eruption is impetiginous, it is apt to remain for a long time, and may be, and often is, mistaken for a true venereal eruption. Its persistent character is generally consequent upon uncleanliness. The blennorrhagia, either from neglect or mismanagement, very frequently degenerates into a chronic vaginitis. The discharge lessens in quantity, continues to be more or less purulent, and usually retains its specific virus to the last. The patient is exempt, perhaps, from nearly all the concomitant symptoms that characterized the initial stage of the complaint, — from which circumstance she arrives at the erroneous conclusion that simple leucorrhœa is her only trouble; but if sexual intercourse be indulged in, the other party is pretty certain to find that he has sought pleasure at a poisonous fountain.

Treatment. — Although, under ordinary circumstances, gonorrhœa in the female does not affect so severe a type as in the male, it is, nevertheless, in all its essential features, nearly as

difficult to manage in the one as in the other. During the menstrual period, there is an increased afflux of blood to the sexual apparatus of the female, and also at this time an exacerbation of the blennorrhagic affection. To these disadvantages another remains to be added: while the menses are present, no local treatment can be pursued; whereas, this constitutes an important means of cure, especially while the difficulty is confined to the vulva and vagina.

In the acute form of vaginal blennorrhagia, antiphlogistic treatment is always appropriate. The patient must be confined as much as possible to the recumbent posture. Saline aperients should be taken in quantities sufficient to act on the bowels freely. Three or four drachms of sulphate of magnesia, in the early part of the day, will generally accomplish all that is required in this particular. Warm diluent drinks, such as toast-water, rice-water, or a weak decoction of eupatorium perfoliatum, with a liberal quantity of the liquid acetate of ammonia, may be taken for the purpose of exciting and sustaining a free diaphoretic action. Weak orangeade or lemonade will also be found beneficial. Advantage will always be gained from the employment of warm baths, resorted to in the evening. They tend to equalize capillary circulation, and thus relieve the local engorgement. A low, unstimulating diet is to be observed. In acute cases, and while the mischief is confined to the vulva and vagina, these constitutional measures are about all, of this description, that will be necessary. It is a local inflammation that we have to deal with, more or less intense, but in which there is rarely any great constitutional participation. In most instances, the condition of the tongue, pulse, and skin, demonstrates this.

Balsam of copaiba, which is so valuable a remedy in urethritis, is wholly impotent in vaginal gonorrhœa.

The following mixture will, in the generality of cases, be found as suitable and efficient a remedy as any in arresting the last-named variety of blennorrhagia: —

℞. Tincturæ Lyttæ, ...
Tincturæ Cubebæ, āā, ... ℥ ij.
Aquæ Camphoræ, ... ℥ iv.
Morphiæ Sulphatis, ... gr. iv. M.

Dose. — One drachm three times a day, in a gill of rice-water or toast-water.

If no inconvenience arise from this quantity, the patient may take four or five drachms in the twenty-four hours. It is seldom that strangury occurs to a degree that requires artificial relief; but if this should be the case, a warm bath or an extra fourth grain of morphia, in half an ounce of camphor-water, will prove a sufficient antidote. A little inconvenience or scalding in micturition, if occasioned by the above mixture, is evidence in favor of its use, although the amount of the medicine should be less than at first. If the disagreeable impression here referred to should be realized, the patient may cherish a confident expectation that a cessation of the blennorrhagia will speedily follow.

Local Treatment. — Injections are chiefly to be relied upon, as topical remedies, in subduing acute blennorrhagia in the female. Although somewhat discordant views prevail in regard to the value of this class of medicines in urethritis in the male, there is no discrepancy as relates to their free employment in vaginitis. Injections of a soothing or emollient nature, rather than those which exert a tonic or astringent effect, are to be preferred in the early period of vaginal inflammation. Warm water constitutes one of the best injections that can be used. In order to derive from it all the benefits which it is capable of affording, it should be repeated many times in the day. It not only keeps the inflamed mucous surface and the other parts comparatively exempt from the irritation of the abnormal secretion, but exerts a decidedly curative influence upon the diseased tissue itself. A thin mucilage, made of the powdered slippery elm bark, constitutes a soothing and quite useful injection; flax-seed tea, and a weak decoction of poppy, are likewise beneficial, and may be used as directed for simple warm water injection. Either preparation, here spoken of, will serve a valuable purpose in appeasing the irritable and engorged condition of all the parts implicated in the blennorrhagic complaint. In order that the injection may irrigate the upper portion of the vaginal cavity, and be prevented from escaping prematurely, the patient should lie on her back, with the pelvis elevated, at the time of using the syringe. What is termed the "pump-syringe," with a vaginal tube, is efficient and convenient The tube should be inserted to the distance of about three inches.

A pint or more of water or mucilage can be thrown up in a few moments, without removing the syringe. As the patient's recovery is based in no small degree upon the use of injections, every practicable facility should be afforded for the best method of employing them; and no expense, necessary for procuring the right kind of apparatus, will be lost. If a pump-syringe cannot be procured, a metallic instrument, having a long curved tube or pipe, and capable of holding six or eight ounces, or a vulcanized India-rubber bag, with a long tube made for the purpose, will answer.*

A tampon of soft lint should be placed between the labia, and warm fomentations applied during the intervals between the injections; and while the active stage continues, warm baths should be used daily. As soon as the severity of the local symptoms has materially abated, injections, different from those mentioned above, must be substituted. Those containing the French chloride of soda will be found useful. Generally it will be advisable to commence with one ounce of the chlorine solution to one pint of water, and let the patient inject two or three ounces repeatedly. It should reach every part of the vaginal canal. If, after a trial of six or eight days, the chlorinated water does not yield satisfactory results, it should be abandoned, and the nitrate of silver be employed in its stead. If the condition of the parts will allow the speculum to be inserted, the mucous membrane can be examined, and the solid nitrate of silver applied, either wholly or partially, over its surface, according to the seat of the disease. The cases really demanding this local treatment, however, are few in number, compared with those in which its use is not called for. The immediate effect is to augment the discharge; but after a few applications, which may be repeated every third or fourth day, it will generally arrest it in a short time. If the surgeon decide to try the silver, the entire surface of the mucous membrane should be thoroughly cleansed with warm water injections previous to its employment. While the vagina is thus treated with the silver, a solution of alum, to the amount of two scruples to twenty ounces of water, may be injected several times during the day.

* Very good syringes for vaginal use are manufactured by Mr. Thomas Lewis, of this city; also by Mr. Davidson, of Charlestown, Mass.

A solution of nitrate of silver is a favorite with many surgeons. In some instances, objections obtain against its use, from the fact that it soils the linen. It also requires a glass syringe, which, especially in the hands of the patient, is not an entirely safe instrument.

Tincture of iodine is a serviceable remedy in the gonorrhœa of females. Like the nitrate of silver, it stains the linen, and on that account is sometimes objected to. A single application is frequently sufficient to arrest the discharge. The vagina will tolerate an injection of higher strength than would be proper for the male urethra. In the proportion of ʒ ss. to ʒ viij. of water, it may be thrown up three times a day, and it may be prescribed in the early period of the complaint, even if there be considerable inflammation; but its efficacy will be more apparent when there is ulceration of the vaginal mucous membrane, or about the cervix uteri. M. Boinet, of France, uses the tincture of iodine, with an equal quantity of water, with great success as a local curative in this affection.

The recent infusion of red bark with nitric acid, furnishes an excellent tonic and astringent injection, and is suited to all forms and varieties of the complaint, after the more acute symptoms have subsided. Let me add that it is equally valuable in cases of ordinary leucorrhœa.

℞. Infusionis Cinchonæ Rubræ . . . . . ʒ x.
Acidi Nitrici, ... gtt. xx.

M. To be used repeatedly during the day.

The chlorate of potash is likewise worthy of a trial in gonorrhœal and vaginal inflammation. It has been prescribed with the same well-known success that attends its use in stomatitis. The subjoined prescription is appropriate: —

℞. Tannin, ... ℈ij.
Potassæ Chloratis, ... ʒj.
Aquæ Fontanæ, ... ʒ xvj. M.
INJECTION.

The patient may use an ordinary female syringeful at a time, and repeat the operation *ad libitum*. Its beneficial effects generally declare themselves in a few days.

Chronic Vaginitis. — This is a gleety condition of the parts, with a thin muco-purulent discharge, which it is often difficult to distinguish from common leucorrhœa. It can usually be successfully managed with astringent and tonic injections. Mention has already been made of one or two of this class of remedies. Besides these, there is a long list of others bearing a similar character. The liquor plumbi is one of the most trustworthy. It should be used repeatedly during the day, in the proportion of half an ounce to eight or ten ounces of water. A saturated solution of alum is good. It may be employed once in the twenty-four hours, and in the interim the surface of the vagina ought to be freely bathed with cold-water injections. The latter may be regarded as both tonic and astringent in their curative action, and may be resorted to with the greatest freedom.

The speculum is to be introduced every few days to ascertain the precise lesion of the parts, provided the case does not progress favorably under ordinary treatment. Through this instrument the mucous surface can be touched, from time to time, with the nitrate of silver, or with the compound tincture of iodine. A small probang is to be moistened with the latter, and applied wherever any aphthous patches, erosions, or ulcerations exist. I prefer the iodine to the silver. The nitric acid likewise affords a suitable application, especially if ulcerations are detected. It should be tried cautiously every third or fourth day.

Vaginitis is often prolonged in consequence of the walls of the canal coming in contact. To obviate this, let a small roll of lint be passed through the speculum, and be deposited in the vagina, where it can remain until the next day, by which time it should be renewed. By having a strong thread attached, it can easily be drawn out. Its presence occasions some inconvenience and trouble, as it interferes with the frequent employment of injections, although it does not prevent their use. Chronic enlargement of the nymphæ sometimes results as a consequence of vaginitis. Leeches, warm fomentations, and cleanliness will generally remove this difficulty.

The labia are frequently the seat of abscesses during the blennorrhagic affection. A free opening should be made at an early period, and they should in all respects be treated accord-

ing to the principles of surgery. If the contents of the abscess are allowed to find an outlet spontaneously, they are liable to pursue a circuitous route, and thus a sinus may be formed which will refuse to heal for a long period. I have known such sinuses to occur, and to remain more than six months before the parts were restored to a sound condition. It is quite surprising to witness the protracted resistance which, in these circumstances, the diseased structure offers to all ordinary surgical efforts.

BLENNORRHAGIA OF THE UTERUS.

In chronic vaginitis, a catarrhal affection is very commonly developed in the uterus. The os, the cervix, and more or less of the mucous membrane of this organ, are involved. If an examination be made with the speculum, it will be found that the follicular or Nabothan glands, and very likely all the parts as far as visible, will afford evidence of some abnormal action. The inflammation is generally moderate in its type, with some induration and engorgement of the cervix; and vegetations and superficial ulcerations are often found to occupy some portion of the os uteri or its immediate neighborhood, the mucous membrane being everywhere thickened.

A copious, tenacious, semi-transparent or muco-purulent secretion escapes from within the os, which is patulous and granular, and of a deep-red color. The secretion is the joint product of the glands of Naboth and of the internal lining membrane of the uterus, and may continue for a very long time after all traces of vaginal disease have vanished. The sterility of prostitutes, it is generally believed, is due to the presence of this discharge, which so frequently exists in this class of females.

In manipulating with the speculum, and in employing a sponge or rag-mop for the purpose of removing the stratum of thick, vitiated fluid which partially occupies the uterine orifice, the parts are easily made to bleed at various points. The operator sometimes finds it necessary to pull away the abnormal deposit with a pair of forceps introduced through the speculum, or to twist it around and entangle it in the swab. In a few minutes after being removed, the material can again be

seen trickling down the sides of the os tincæ and lodging on the vaginal surface, where it rapidly accumulates in immense quantities. I have frequently witnessed these phenomena in women who find their way to Deer Island Hospital, and other similar institutions. Dissolute and broken-down prostitutes, and those of a strumous or leuco-phlegmatic temperament, are liable to this variety of blennorrhagia. The affection gives rise to more or less constitutional disturbance. The patient becomes pale, has a poor appetite; is troubled with indigestion, pain in the lower part of the spinal column, attended with a sense of weight or bearing down of the uterus; is unable to walk or to take other exercise without aggravating the local symptoms; is nervous, dejected; has cold hands and cold feet, a clammy condition of the skin, a quick, feeble pulse; is subject to fits of hysteria; and is in all respects a miserable specimen of humanity.

Treatment of Uterine Blennorrhagia. — In the *local* treatment of this malady, the application of the solid nitrate of silver to the cervix, to the lips of the os tincæ, and in some instances higher up within the walls of the uterine cavity, is an effectual procedure. Before using the silver, it is requisite to remove the morbid secretion, and to cleanse the parts as thoroughly as possible by wiping them with soft cotton or lint. Unless this preliminary measure be carefully observed, the caustic cannot fairly attack the lesion. The employment of the silver should be followed immediately by an injection of warm water, or of decoction of poppy. It will be necessary to insert the speculum in order to bring the parts into view to which the nitrate is to be touched. The repetition of this process must depend upon the results which follow, and of which the surgeon will best judge by introducing the speculum in three or four days after the application of the silver. The potassa cum calce is preferred by some practitioners, among whom are Bennett and Acton. It penetrates deeper into the tissues than the silver. It is hard, and requires to be rubbed against the affected part. Hysterical convulsions and profuse hæmorrhage are among the symptoms occasionally supervening upon its use. It requires no little practice to know how to apply it to the best advantage. Prof. Simpson selects the potassa fusa in preference to all other

escharotics. He states that he finds it far more manageable, speedy, and certain than any other substance. The chloride of zinc is a favorite with some surgeons. It is highly deliquescent, and it is difficult to prevent it from spreading in all directions; and before it is possible to employ a solution of carbonate of soda, or other neutralizing agent, the caustic will have time to injure the healthy parts. Similar objections exist in regard to the potassa fusa. If the medical attendant be thoroughly drilled in the business, as are the surgeons mentioned above, perhaps no fear need be entertained in the employment of the zinc or potash; but otherwise, I think these escharotics are to be regarded as too potent, too quick, too unmanageable for common use. But few Actons, or Bennetts, or Simpsons are to be found in the medical or surgical ranks. The French practitioners are in favor of the acid nitrate of mercury in syphilitic and other uterine or vaginal ulcerations. In ordinary cases, it is best to begin with the nitrate of silver, or with the compound tincture of iodine; and, failing of success with these, the more energetic topical measures may subsequently be adopted.

In the free use of caustics of almost any kind, the os and cervical canal are in danger of becoming contracted to such a degree as nearly to obliterate them, and thus interfere with the normal process of menstruation. To prevent this accident, it is sometimes necessary to pass a bougie through the canal whenever the caustic is resorted to.

In rare instances, that have resisted the measures above proposed, deep scarifications into the os have been made, and the nitrate of silver applied immediately afterwards with the intention of destroying the follicles from which the morbid secretion comes. The operation is said by M. Huguier to have been successful in his hands, and not to have been particularly painful.

Injections. — Under this head a few words only need be offered in addition to what has been presented in previous pages in connection with urethral and vaginal gonorrhœa. For occasional use, an intra-vaginal injection of a concentrated decoction of black walnut leaves will be beneficial.* The speculum is first to be introduced, and the neck of the womb exposed;

* This was a favorite remedy with Vidal.

then with a large enema syringe, the decoction is to be thrown up, in direct contact with the cervix, and a tampon of lint is afterwards to be placed upon it so as to isolate it from other parts. This injection is to be used only twice a week, and on the days when it is not employed, the patient is to make use of some of the milder astringent liquids. An *infusion* of walnut leaves, with half a drachm of sulphate of alumina to the pint, can be injected every two hours during the day. A decoction of the inner bark of the common white pine makes a valuable injection in all chronic cases of vaginitis, whether the uterus be involved or not. It should be used with a long syringe, in the same manner as the walnut infusion. It is slightly stimulating as well as astringent, and causes a sensation of warmth in the parts, but no other inconvenience. A composition consisting of four ounces of glycerine and one ounce of tannin has been employed with advantage in chronic vaginal and uterine blennorrhagia. The method is this: after the puriform matter that lines the walls of the vagina has been thoroughly washed away with cold water injections, two or three plugs of lint, well soaked in the glycerine and tannin compound, are to be introduced so as to occupy the entire length of the vaginal canal. On the next day they are to be drawn out; the cold water injections again employed, and fresh plugs introduced through the speculum.

Various other topical means will suggest themselves to the physician, if those already mentioned prove inadequate to accomplish the desired end.

THE CONSTITUTIONAL TREATMENT best adapted to the condition of most patients laboring under chronic vaginitis or uterine blennorrhagia, is that which has a large tonic element of some sort. The bowels should be kept in a healthy state; the diet should be simple, nutritious, and liberal in allowance; and bathing, cold or warm, as the patient may prefer, is to be practised every day or every other day, at all seasons of the year.

URETHRAL BLENNORRHAGIA IN THE FEMALE.

Urethritis, as a distinct morbid condition, is not often met with in the female. If a healthy woman has sexual intercourse

with a man while a blennorrhagia is upon him, the vulva, vagina and uterus sustain the injury, while the urethra, from the almost total concealment of its orifice within the surrounding tissues, is comparatively exempt from danger. Nevertheless, it is occasionally doomed to receive the contagious matter, while the other parts escape.

Symptoms. — Itching, smarting, pain, scalding, difficulty in micturition, with frequent inclination to urinate; redness and tumefaction of the meatus, announce the advent of the disease. Other unusual phenomena, relating to the parts directly involved, soon appear. It is scarcely necessary, however, to draw an exact portrait of all the minutiæ belonging to this variety of blennorrhagia in the female. It is sufficient to remark that the symptoms are essentially the same as those which exist in urethritis in the male. If the physician be in doubt whether the secretion proceed from the urethra or the vagina, the question can be decided by passing the finger into the latter, and pressing gently from behind along the course of the urethra. This will occasion an escape of the purulent fluid from the orifice of the urinary canal, if that be the seat of trouble.

Treatment. — Rest, low diet, fomentations, hip-baths, etc., as recommended in the other forms of gonorrhœa in the female, will be appropriate in the present variety. Bland, diluent drinks are more essential here, and more beneficial, that when the urinary organs are not involved. The bladder is prone to manifest a great degree of excitability, to allay which the free use of opiates will be important.

The internal administration of balsam of copaiba, cubebs, and other anti-gonorrhœal remedies, may be relied upon with the same prospect of advantage as in urethritis in men. If, during the acute stage of the complaint, much febrile excitement prevail, all specifics for the local affection should be laid aside, until the constitutional symptoms have been subdued by antiphlogistic measures. To allay the general disturbance, let the patient be put upon the use of the following: —

℞. Sodæ Sesquicarbonatis, ... gr. xv.
Potassæ Nitratis, ... ʒij.
Spiritûs Ætheris Nitrici, ... ʒj.
Vini Antimonii, ... ʒij.
Syrupi Simplicis, ... ʒij.
Aquæ Fontanæ, ... ʒv. M.

Dose. — Two drachms every hour during the day.

The liquid acetate of ammonia is a suitable diaphoretic, and may be ordered in liberal doses if any febrile symptoms are present.

When there is no great constitutional derangement, and it is seldom that there is, the patient must at once be put upon the use of remedies that act peculiarly on the urinary organs.

As a standard prescription, adapted to the greatest number of cases in the female, the subjoined formula will be found one of the most reliable : —

℞. Copaibæ, ...
Mucilaginis Acaciæ, ...
Pulveris Cubebæ, āā, ... ʒj.
Spiritûs Ætheris Nitrici, ... ʒss.
Misturæ Camphoræ, ... ʒviij. M.

Dose. — Half an ounce, in as much cold water, three times a day. The quantity may be increased if the stomach will tolerate it.

Although a suspension from all active motion is in a high degree subservient to the favorable action of the remedies in this disorder, and places the patient in a condition to be relieved of the local inflammatory engorgement and all its attendant symptoms, yet a majority of persons of both sexes who have the complaint, are either unwilling or unable to submit to that degree of confinement and restraint so indispensable to a speedy cure. The advantages of rest are in no disease more remarkably displayed than in the acute inflammation of the mucous tissues generally. This we see verified in conjunctivitis, in dysenteric and pulmonary affections. The same is eminently true of the genital system. On the other hand, let this fact be impressed on the patient's mind, — that there is no malady in which indiscretions and irregularities of any kind are followed by more injurious consequences than in blennorrhagia.

CHAPTER XVII.

SYPHILIS.

THE researches prosecuted by those who have enjoyed most ample opportunities for studying the syphilitic disease, in all its phases and consequences, as displayed in the human organization, point almost without exception, to the fact that its primal type and characteristic qualities are one and the same.

The virus has its best expression, its most distinct embodiment, as well as its earliest incarnation, in the chancre; and we must regard this lesion, with here and there an exception, as the starting-point or focus from whence result all the malign and diversified influences and developments known to the medical man as syphilitic. We may consider the fact as established beyond reasonable doubt, that in all the varieties of the disease there is but one true poison of syphilis, which poison produces different effects according to the nature of the tissue and the peculiar idiosyncrasy of the constitution in which the disease is manifested; — all these different phenomena depending on the same morbific cause.

It is well known that if several men have intercourse with a woman diseased with syphilis, they may not all exhibit precisely the same symptoms, although all receive a venereal infection. Mr. Acton relates the following: Three students had connection with the same *grisette* during one evening. One was affected with a phagedænic sore; one with an indurated chancre; and the third had a simple excoriation, which was slighter than that which existed on the genital organs of the female, who was examined a few days after the debauch. Holmes Coote mentions the case of a surgeon who had connection with a female. Immediately afterwards he noticed an abrasion on the inner surface of the prepuce which he disregarded, but which spread into a non-indurated chancre. From the discharge, which was

purulent, proceeding from an open ulcer, five sores formed by inoculation. Of these, only two acquired the characteristic induration at the base. Similar instances, exhibiting the most varied abnormal conditions, occasioned by the syphilitic virus, now and then present themselves in ordinary practice; and they render the complaint in question one of the most obscure and difficult subjects to understand that comes within the range of medical and surgical observation.*

Of the essence — the intrinsic nature — of the microscopic forms of this animal poison, we know nothing. As yet it has proved too subtle for detection. Whatever it may be, in any stage of its vitality, it remains shrouded in the same darkness that conceals from our comprehension the elementary nature of the variolous substance, or the morbific principle of hydrophobia, typhus fever, or cholera.

Investigations, conducted by competent scientific masters, under every possible advantage, have been sufficiently numerous; and we have incontestible proof both from natural and artificial inoculation of the contagiousness of the chancrous substance, and also, as I believe, in some instances, of secondary venereal matter; but we are not furnished with a reliable foundation, upon which to rest any conclusions in regard to the specific, primordial atom, on the presence of which the com-

* It is plain, that if we admit the doctrine of duality, on which I have just dilated, we may do so without infringing upon the unicity of the *syphilitic* poison; because, from all we have said, it would appear that there seems to be a duality of *chancrous* poison, but that there is but one actually syphilitic virus capable of infecting the economy. We, therefore, find that Ricord may side with his pupil [M. Bassereau] without interfering with any of the tenets he has hitherto been maintaining. He has, indeed, given in his adhesion, but in a somewhat guarded manner, and he is, perhaps, right, as certain points are not, as yet, perfectly elucidated. Amongst these, is the fact of soft chancres being rarely, or never, found in the cephalic region; about the head and face the chancres are always of the hard kind; and yet it may fairly be supposed that the region in question may occasionally come in contact with pus derived from a soft chancre. M. Diday has attempted to explain this by saying that soft chancre does not take on the head, just as scabies is known to shun the cephalic portion of the body. But it must finally be confessed that the evidence in favor of a *duality* of *chancrous* virus is overwhelming, and that it is very probable that much time will not pass before it is admitted by the whole profession. The unicity of the syphilitic virus remains, however, unshaken. — *Victor de Meric, Esq., Lecture — London Lancet, August*, 1858.

municability of the exudation depends. Specimens of indurated chancre, at different periods of development, have frequently been examined microscopically, with a view to ascertain their precise anatomical characters. Mr. Busk, the accomplished surgeon of the Hospital Receiving-ship "Dreadnought," London, and M. M. Lebert and Robin, of Paris, have devoted special attention to the subject. They have arrived at the same result as to the specimens submitted to their observation. The chancrous masses were composed of fibrous tissue or stroma, — granular albuminous deposit, epithelial cells, blood-globules, free nuclei and fibro-plastic cells. Thus it will be seen that these investigations respecting the minute structure of chancre, do not add any thing to our knowledge respecting the peculiar constituent, or entity, which endows it with its mysterious power to pervade, to poison, and to destroy the entire human fabric. Fibro-plastic cells and fibrous stroma, and indeed all the component parts mentioned above as composing indurated chancre, are found every day in morbid growths, that are as remote in their nature from all that is syphilitic as the east is from the west. We must say then, that the microscope reveals the same anatomical elements in chancre that are found in other morbid products. And this is but repeating the declaration of our ignorance as to the diagnostic element — the causative poison of syphilis, — a poison that imprints upon the organism results totally different from any other. Chancre is the root of this tree of evil. Its fruits are seen in generations that live after the root itself is dead.

Probably not one chancre in twenty possesses the characteristic induration of its base and edges and all the other peculiar attributes which constitute what is called the Hunterian chancre, and which was formerly regarded by many leading surgeons as the only true type or indication of the syphilitic sore, and which alone, under ordinary circumstances, was thought capable of infecting the constitution. Mr. Henry Thompson reckons only two primary sores or chancres — the indurated and the soft; and estimates that one instance of the former occurs to three or four of the latter. "That this form of disease," says Labatt, "which has been termed the Hunterian chancre, is of rare occurrence must be admitted. The late Mr. Carmichael, whose experience both in hospital and private practice was very extensive, never

met with more than half a dozen cases of the disease as described by Hunter, during a long period. I have conversed with Sir Philip Crampton and Mr. Cusack, our most eminent surgeons in this city, and they are unanimous as to its infrequency. On referring to the communications with which I have been favored by Mr. Lawrence, of St. Bartholomew's Hospital, I find that this distinguished and accomplished surgeon is not disposed to recognize Mr. Hunter's description of primary syphilis as adequate or perfect, but considers it both partial and defective."* Dr. John C. Egan, of Dublin, who has had an extensive hospital experience, states that out of upwards of three hundred cases of primary ulcers, the characters of which he accurately noted, he was able to collect only thirty which could be strictly classified under the head of the genuine indurated and excavated ulcer of Hunter.†

This variety of chancre is more frequently seen in the male than the female. It yields but an insignificant quantity of matter.

At the present day, the general opinion of the profession is, that primary sores, not endowed with the characteristic sign of hardness, have within them the contagious element, and the power also, to generate secondary accidents. It is believed that the most simple chancres that have the least degree of induration, may be followed by constitutional symptoms. The presence of induration is deceptive. This is acknowledged by Ricord himself. Some authorities maintain that all chancres are more or less indurated. The attribute in question is due to the presence of plastic lymph deposited in the diseased tissues, and the degree of induration depends upon the amount of infiltration. This interstitial effusion is comparatively a late symptom or condition, superadded to the vesicle, or pimple, or abrasion, which constitutes the original lesion, and which is unattended with pain or soreness, and progresses very tardily, almost imperceptibly, for a period ranging from five to fifteen days, before the distinctive feature of induration begins to be developed, and this hardness requires time for its completeness. In some examples, the deposition of lymph is so gradual that it does not become a well defined and fixed fact until the third week of the chan-

* Venereal Diseases, 1858, p. 90. † Syphilitic Diseases, p. 49.

crous sore. In most instances, the chancre we are speaking of appears as a solitary lesion. It occurs in individuals of the highest health. It never passes into a sloughing ulcer, unless in consequence of some mismanagement; and it gives rise to no constitutional disturbance whatever. The cartilage-like wall which nature throws around the sore, as if to insulate it from the surrounding healthy structures for their protection, restrains the abnormal local action within circumscribed bounds. But this does *not* prevent the absorption of the virus into the system. Induration is not in this respect a protective process. On the contrary, there is no variety of chancre so uniformly followed by constitutional symptoms as the one under consideration; whereas the syphilitic poison may be, and generally is, destroyed by the sloughing or mortification of the part in which it is located. Mr. Lee is of opinion that the same result may take place from suppuration in an absorbent gland, consequent upon ulcerative inflammation; and also that what is termed the deciduous cell-growth, or suppuration on the surface of a poisoned wound, will effectually eliminate the poison from the part.* That this theory will apply to many primary sores is highly probable, and perhaps may help us to understand how it is that some primary accidents are followed by secondary affections, and others are not. But suppuration of a primary sore does not necessarily and always ensure immunity from constitutional syphilis. This latter is not an infrequent occurrence in the form of cutaneous eruptions, sore throat, iritis, etc., supervening upon chancres or ulcers that yield an abundant puriform fluid.

A chancre may be developed upon any portion of the genital organs of the male or female. In the former, it is most frequently located on or near the orifice of the prepuce, on the corona glandis, and at some point near the frænum. It is occasionally detected in the urethra, just within the meatus, and is known as the *concealed* chancre. In the female, it is most commonly situated on the external labia, at the line of union of the skin and mucous membrane. It occasionally selects other sites, as the entrance of the vagina, the anus, the lips, the nipple, and very rarely, the cervix uteri; also different parts of the skin adjacent to the genital organs.

* British and Foreign Med. Chir. Review, October, 1856.

The difference in the natural structure of the parts in which the chancre is situated, as causing induration, is sometimes illustrated in quite a curious way. Thus, if one portion of a primary sore is situated on the corona glandis, and the other on the mucous surface of the prepuce, the induration will form at the base of the latter only. The veritable Hunterian chancre on the glans penis is a phenomenon that was probably never seen. The firm, compact structure of the part, and its almost total destitution of areolar substance, form a barrier to the deposit of lymph on which, as previously stated, the dense *cartilaginous* chancre in question depends for its characteristic feature.

The surface of the chancrous sore is frequently covered with a grayish, adventitious layer, which, on being washed away, or otherwise removed, is quickly reproduced. This false membrane has been supposed to be the substance which furnishes the poisonous matter. The idea, however, is merely hypothetical; for we have examples of chancres showing themselves in men after they have had connection with females who have at the time no lesion, except the slightest abrasion or excoriation of a venereal character in some portion of the mucous surfaces.

The venereal virus continues in contact with the part in which it is deposited, for a short time, before any effect is perceptible. This is what is termed the period of incubation. The phrase is objected to by Ricord, who maintains that the poison, when brought in contract with the tissues, excites instantaneous action, which remains local for three, four, five, or six days, within which time the sore may be destroyed by some caustic application, and thus constitutional infection be prevented.

The interval between impure connection and the manifestation of local symptoms varies somewhat according to the condition and anatomical structure of the part in which the virus is deposited. If this spot happen to be denuded of its cuticular or epithelial covering, inoculation will show itself, without doubt, at an earlier moment than it would if there were no such abrasion. It is probable, also, that the specific appearances may be developed more rapidly on the warm, moist surface of the mucous tissue than on the external surface. In-

deed, it is very difficult to inoculate through the sound skin. The average time between exposure and the supervention of morbid phenomena is between five and six days. The extremes, as to this interval, vary from twenty-four hours to ninety days. Hunter had one case, where the period of incubation was seven weeks. Mr. Lawrence relates an instance of five weeks; Mr. Parker mentions two cases, in which the virus did not develop itself until three weeks in one, and one month in the other.

ABORTIVE TREATMENT OF CHANCRE.

If a chancre be destroyed with caustic at an early day, and before induration of its base has taken place, the system may be saved from infection. The axe has been laid at the root of the tree. This is the case, at least, ordinarily. Ricord holds, that to be effectual, this local treatment should be resorted to before the fifth day from exposure to the contagion. But to this it may be replied, that we cannot know in any given case at what precise moment the poison may be received into the system. The time when this happens must vary in different individuals, and according to the nature of the various tissues in which the primary affection is developed; and in regard to the rule suggested by Ricord, as a guide for the rapid destruction of the virus, I must say that I am not disposed to advocate a rigid adherence to it. If, as the result of contagion or of a suspicious connection, the virile organ has upon it a papule, pustule, abrasion, or sore, which *may* be the forerunner of constitutional syphilis, the best thing the surgeon can do, locally, is to make a caustic application to the spot, provided this can be done seasonably — that is, within ten days from the appearance of the abnormal condition. The design of this simple operation is twofold: to destroy the morbid structure, and to create a healthy recuperative action in the part.

During the first six or eight days subsequent to the development of a pimple, pustule, or sore on the prepuce, glans, or elsewhere, I am not aware that it presents any unequivocal, diagnostic features or infallible signs, by which the surgeon can determine whether or not it is a genuine venereal chancre,

according to the Hunterian doctrine. It is far easier to use the dialect of the pathologist, and speak of circular forms, excavations, hardened edges, and the like, as appertaining to a suspicious sore, than it is to demonstrate to one's senses that these attributes are or are not present in many lesions following suspicious sexual intercourse. These remarks are applicable to a large proportion of cases that present themselves for treatment. Many well-skilled and practical surgeons, familiar with syphilitic affections in all their phases, are honest enough to acknowledge the difficulties they encounter in determining the precise character of the primary sore. If the parties see fit to try the experiment of inoculation, perhaps the question may be settled; but meantime, if the medical attendant should wait for evidence consequent on this procedure before doing any thing to rescue the individual under his care from any possible constitutional manifestations, he would do an unpardonable injustice to the case.

Amid the absurdities, the fallacious tests, and the uncertain indications in which the judgment of the surgeon is vacillating and perplexed, how shall he act? This question can be disposed of in a summary manner. The circumstances relating both to the history and existing condition of the patient, suggest the suspicion that syphilis may lurk in the diseased organ or tissue. Laying aside, then, the nice splitting of hairs, and other minor distinctions, let the medical attendant, without delay, institute such a rational and practical line of treatment as shall best protect the individual from the direful train of evils that wait on constitutional syphilis. Of this treatment I propose to speak presently.

Dupuytren was strongly opposed to cauterization. He called it the most fatal of methods. M. Vidal seems also to have entertained a low appreciation of the efficacy of the abortive treatment, whether the knife or the caustic was applied in the extirpation of the chancre. He held that a portion of the virus may in some instances enter at once into the system, as it does from the bite of a venomous reptile; and that however early the local treatment may be put in force, it cannot, in such instances, act as a safeguard against the occurrence of secondary symptoms. The local action, and that which ultimately contaminates the entire organizations, in the cases here alluded to,

may be simultaneous. It is admitted that the destruction of chancre at the earliest moment of its existence does not always prevent general infection; and the theory advanced by M. Vidal commends itself to our judgment; and yet the number of cases brought to our knowledge of constitutional symptoms supervening upon the radical destruction of the primitive chancre is too small essentially to diminish the merits of such local treatment. If the surgeon be consulted within eight or ten days from the appearance of the suspicious lesion, he is justified in resorting to the caustic. Whether the pimple or ulcer possesses all the reputed scientific attributes of a chancre, or not, the caustic should be applied. It cannot do harm. If properly employed, it will occasion a small slough, after which follows a simple healthy sore, that will heal kindly, and thus the surgeon may prevent a life of misery.

Syphilographers differ as to the number of days from the inoculation of the primary local disease during which it is expedient to resort to cauterization as an abortive measure. With Ricord the period for this application is very limited; Wilson is less definite, but is evidently inclined to allow more latitude, as to time, than Ricord. Mr. Lane states that he should be much surprised to find any sore which healed within a fortnight of the application of the original poison followed by secondary symptoms. It seems rational to suppose that the chances of constitutional infection are, *cæteris paribus*, in proportion to the duration of the local disease; and, therefore, the earlier we destroy any erosion or pimple induced by exposure, the more successful will the effort prove, and the less occasion will there be for any special constitutional treatment. In offering suggestions for caustic applications, Ricord remarks: "In the first place, we are not to reckon the age of the chancre from the time when its existence was first perceived by the patient, but from the moment of exposure to contagion. In acting thus, and destroying the chancre before the fifth day, the patient escapes from secondary symptoms." According to this method of computing the age of the chancre, and the rule given for its treatment, we should scarcely know how to proceed in some cases. Suppose the individual does not discover any abnormal condition whatever, until the sixth or eighth day after suspicious connection, although he has had a watchful eye upon the parts, and suppose he should apply to a physician within

three or four days, or even eight days, from the time the lesion was detected, would not the application of the escharotic be a justifiable and hopeful measure? I think it would; and I imagine few practitioners would refrain from its use under these circumstances.

Local Applications. — The potassa fusa, the acid nitrate of mercury, and the concentrated nitric acid, are the remedies with which I am most familiar as local appliances used to neutralize the syphilitic virus, while it is believed to be yet confined to the infected spot, or chancrous sore, in the first few days of its existence. Either of the escharotic substances here referred to is sufficiently potential in its action, and perfectly manageable in the hands of the surgeon. The nitrate of silver I never employ on these occasions, nor yet the Vienna paste. The silver does not extend so deeply in its destructive agency as either of the other substances, and although it may act efficiently on the more superficial portion of the morbid tissue, the deeper stratum may, and probably will, escape. With organic structures it forms an insoluble compound, which acts as a preventive to its continuous power as a caustic, by producing a hard, impermeable coating on the tissue. It thus sometimes acts favorably where it is applied to check slight hæmorrhage from a small surface; but I quite agree with a remark of Professor Peaslee, in his Human Histology: that, although it blackens the epidermis, and renders opaque the epithelium of mucous membranes, it destroys nothing beneath them, and is, therefore, not a caustic in any scientific sense. Some surgeons rely upon it; but it is not entitled to confidence in our attempts to annihilate an incipient chancre. Ricord formerly employed it; — he now recommends the Vienna paste and the monohydrated nitric acid.

If the lesion consist in an abrasion, the nitric acid is the substance I generally apply. It may be used by means of a small bit of lint secured to a silver probe. The sore may be freely covered with the acid, and any excess must be immediately washed off with warm water, which should be at hand for the occasion. If the surface, which requires to be touched, be very small, the end of a glass rod may be moistened with the escharotic, and then be brought in direct contact with the diseased spot. If the acid nitrate of mercury be preferred, the same

Lint, saturated with this solution, should be kept in contact with the sore. Nitric acid, two drops to the ounce of water, makes a clean and suitable dressing also. If the purulent discharge be abundant, the aromatic wine with tannin will be the most appropriate application.

℞. Acidi Tannici, ... gr. xv.
Vini Aromatici, ... ℥ iij. M.

If the sore become painful, a piece of lint, soaked in a solution of the aqueous extract of opium, in the proportion of two scruples to four ounces of warm water, should be laid upon it; and the warm-water dressing, with an oiled silk covering or thin gutta-percha, should be placed on the organ. These topical measures are generally adequate to preserve the chancrous sore in a healthy condition until a sound cicatrix is formed. Slight cases frequently occur, which, after the caustic is applied, require little or no further care or treatment. Instances occasionally present themselves, in which healthy granulations fail to appear, after the application of the caustic and the subsequent dressings that have been mentioned. The surface of the wound assumes a spongy or fungoid aspect. In such circumstances, the following astringent and tonic lotion will be well suited to the lesion: —

℞. Acidi Tannici, ... ʒ j.
Tincturæ Lavandulæ, ... ℥ iv.
Vini Rubri, ... ℥ iv. M.

The black wash acts beneficially in ordinary cases of chancrous sores. For many years it has borne the test of surgical experience, and its therapeutic qualities are of a reliable character.

As a protection to the sore by night, the nitric oxide of mercury ointment should be ordered.

CHAPTER XVIII.

CONSTITUTIONAL TREATMENT OF CHANCRE.

ALTHOUGH the surgeon loses no opportune moment in attempting to annihilate the syphilitic virus by the destruction of the part in which it is believed to be confined, he should not feel safe or justified in all cases in dispensing with internal remedies as a prophylactic against constitutional infection.

The chancre, considered abstractly and by itself, is an affair of small moment. It is the consequences which may be entailed upon the individual, and of which the chancre is the usual medium, that we are to dread. But if the abortive plan of treatment has been seasonably executed, to the extent of completely demolishing a chancrous sore, we are warranted, generally speaking, in the conclusion that its poisonous element is destroyed also; and a resort to mercurial remedies will be uncalled for. Egan advocates the employment of mercury, even if the specific ulcer yields kindly to the topical applications; and he considers that the surgeon who undertakes its cure without the aid of this mineral, is responsible for the constitutional symptoms which his ignorance or temerity will in all probability induce. He has, however, the candor to admit that if mercury be given with a view to cure the indurated chancre, it will not, in all cases, prevent the accession of secondary accidents. If perfect cicatrization have been accomplished, and the part be restored to a normal condition, the patient may, ordinarily, be permitted to resume his avocations, provided his general health has not in any wise deteriorated during the local treatment that has been needful.

If any functional derangement of the digestive organs exist, it should be rectified by the simplest means. The stomach may require a tonic, or the bowels an aperient, or some other measure may be necessary to quicken the appetite and bring the vital organs into more vigorous play. The diet may now be of

a generous description; exercise in the open air, ablution, regularity, temperance, and such other hygienic habits should be enforced as will promote the constitutional welfare.

It is seldom, however, that an individual who has a chancre, applies for aid sufficiently early to render the abortive treatment of any avail. In his ignorance, the patient has allowed the brief period to pass within which this treatment might have resulted in perfect success, and he is compelled to enter upon a course of general medication as his only hope. The venereal poison, in his case, is no longer circumscribed within the limits of the small pustule or pimple, which had such a harmless and insignificant look to his unpractised eye. It has broken away from its barriers, and has commenced its course through the system; and, if not prevented by judicious means, it will ultimately find its way through all the tissues which constitute that system. It will do more than this; it will increase in quantity, and will impart its qualities to the blood, "that river of life, that wondrous epitome of solids and fluids," and there revel and riot during the existence of its victim. How, then, shall this infection be arrested? Let us proceed to answer.

The virulent matter, although just emerging from a state of incubation, and, therefore, scarcely appreciable, or shown by any external manifestation, has, nevertheless, stamped upon the patient the syphilitic diathesis, and we must now consider that his constitution is contaminated. Under these circumstances, the first thing to be done is to put him upon a regimen that may serve, in some degree at least, as a sanitary cordon, and fortify him to resist the threatened accumulation and encroachments of the poison.

The second indication which should engage the attention of the medical attendant, has reference to the elimination of the morbific principle, through the medium of the emunctories, with which the animal economy is endowed, and which are capable of being excited into preternatural activity by various remedial agents.

The personal habits of the patient are to be inquired into, and whatever in them is prejudicial to health, should be prohibited. Let me suggest that it is as much the duty and the right of the physician to exact an entire conformity on the part of the patient to a rational mode of life from day to day, as it

is to prescribe medicines, with the expectation that they will be taken and employed according to directions. This I say, because I know from experience that it is but too often that the physician has to encounter strong opposition, if not downright obstinacy, when he gives salutary advice touching the daily and nightly indulgences of the syphilitic patient. This is the ground on which the latter will attempt to make the former succumb to his unbridled proclivities. A few years ago, a Spanish *gentleman* just arrived in Boston from a foreign port, sent for me to visit him at his lodgings at a hotel. I found him in bed, and, on examination, discovered a large chancrous sore on the prepuce, and a large bubo in the groin, in an inflammatory condition, as was also his whole system, as indicated by the pulse, skin, tongue, etc. The apartment he occupied was filled with the fumes of tobacco. He was smoking, and stated that he spent much of his time in this manner. He also spoke of his fondness for stimulating drinks. Through an interpreter, I signified my disapprobation of his habits, and remarked that they would prejudice his recovery, and that if I attended him I should expect he would give up his cigars and libations while under treatment. He was instantly exasperated, — said he would submit to no such restraint from any man, and that he wanted nothing further of me. Accordingly I took my hat, and was glad that I escaped so safely from this ruffian.

In all cases, the patient should be induced, if possible, to forego the use of tobacco. The saliva, in its pure state, is needed to aid in the early stage of digestion. It is scarcely necessary to mention that stimulating drinks must be interdicted; the diet should be plain, but nutritious. Among the articles of food to be allowed, are milk and lean meats, and all our native fruits in their season, and in moderate quantities, unless some special circumstances in the case contra-indicate them. In short, whatever the physician knows will contribute to a healthy condition of the organs of digestion and assimilation, and thereby tend to preserve the normal richness of the blood, should be allowed; all else ought to be denied.

If possible, the patient should be placed in a healthy residence, where he can have the benefit of a pure atmosphere at all times, night and day; he must avoid all extremes of temperature, should practise daily ablution of the whole surface of

the body and limbs; and the skin, liver, bowels, and kidneys, should be kept in a healthy condition. The importance of these hygienic measures will be sufficiently apparent, if we recollect that the moment the syphilitic element comes into contact with the blood, its immediate and constant effect upon that fluid is to diminish the quantity of its red globules in a very marked degree. M. Grassi, *pharmacien-en-chef* of the Hotel Dieu, has recently made a series of analyses of the blood of syphilitic patients. In simple chancre, it presents no material deviation from its physiological condition. In indurated chancre and secondary syphilis, there is uniformly a diminution of the blood-globules, and an increase in the amount of albumen, but no perceptible variation in the quantity of fibrine. These facts are interesting, in a pathological point of view. As will be seen below, the iodide of potassium may be resorted to for the purpose, among other things, of restoring the blood to an approximation of its normal constitution, as it is found to exist in healthy persons.

According to the analyses above referred to, the blood of patients affected with simple chancres contained the following relative proportions of corpuscles: —

		Parts.		Parts.
First patient,	corpuscles,	140.4	to the	1000.
Second "	"	140.4	" "	"
Third "	"	140.5	" "	"
Fourth "	"	138.1	" "	"
Fifth "	"	133.6	" "	"

In indurated chancre, the proportion of corpuscles, in one instance, was reduced to ninety-four parts in the thousand. This was increased by the iodide of potassium, which was taken for one month. The corpuscles, at the expiration of this period, were increased to one hundred and twenty-eight parts to the thousand. In one case of indurated chancre, with syphilitic spots, the proportion of corpuscles was reduced to forty-eight parts in the thousand. In all the cases examined, the outbreak of syphilis was recent; the above results, therefore, do not represent the state of the blood in the later stages of the disease.* This disturbance in the process of hæmatosis

* L'Union Médicale, May, 1857.

is followed more or less rapidly, in different individuals, by a corresponding decrease of muscular strength, anæmia, and other depressing symptoms. By insisting on proper regulations as to diet and regimen, the medical adviser will put the patient in the most favorable attitude to forestall these adverse conditions, and various others of a kindred nature, which might otherwise be developed.

Artificial Syphilization. — The second indication being strictly therapeutic in its bearings, introduces for consideration the most appropriate constitutional treatment for subduing the disease in all its different forms and phases. In Paris and some of the other continental cities, chivalrous experiments, in numerous instances, have been made within a few years, upon men, women, monkeys, and other animals, with a view to test not only the prophylactic, but also the curative effects produced by inoculating the pus of chancre upon the healthy skin or mucous membrane, and thus, it is alleged, ultimately to carry this process to the point of saturation in the system, as is done in vaccinia. In this way, it is argued, patients may become not only artificially syphilized, and ever after be proof against the action of the virus, but it is further announced and believed, that the symptoms, which follow after exposure to impure connection, promptly disappear by having the patients artificially inoculated on the thighs, vulva, prepuce, abdomen, etc.

M. Turenne, a young French physician, commenced a series of experiments in 1844, or thereabouts, for the purpose of testing the doctrine of Hunter, on the communicabilty of the venereal virus to the lower animals. After various trials, he at last succeeded in causing in monkeys, inoculated with chancrous matter, a complaint resembling, in all respects, a true chancre. From monkeys it was transferred to rabbits, cats, and horses, and from these victimized animals it was returned by inoculation to the human species.

Dr. Robert Weltz, of Würzburg, having made trial of it on himself, produced four veritable chancres on his own person. The researches of Turenne led to the curious discovery that each succeeding chancre, from inoculation, became less and less, until finally no chancrous sores followed the application of the poison. This fact gave rise to experiments on the human

subject, with a view to bring about the condition styled "syphilization." It is asserted that the process in question protects the organization from the venereal disease subsequently, just as an individual who has had small-pox cannot have it a second time. To arrive at perfect immunity, the patient must undergo, as rapidly as possible, reiterated inoculations, in order that it may not jeopardize his health.

The conclusions drawn by Professor Boeck, of the University of Norway, from eighty-four cases which he treated up to March, 1856, are that in all cases immunity from the venereal virus is obtained sooner or later by inoculation; that the symptoms of syphilis present at the commencement of syphilization, disappear during the employment of this mode of treatment; that the general health does not suffer from syphilization — on the contrary, if the patient has been in poor health before inoculation, he most materially improves in strength and appearance during the process.*

That the immunity claimed as a result of repeated inoculations is really acquired, is rendered certain, *if* we can place reliance on the experiments and the testimony, not only of Professor Boeck, but likewise on the evidence furnished by M. Sperino, of Turin, Danielson, of Bergen, and Carlsson, of Stockholm. It is further claimed by some of the advocates of syphilization, that it is the only remedy we know; and that the eruptions, the rheumatic and neuralgic pains, and other symptoms of constitutional syphilis, vanish under repeated inoculations.

I opine that the day is far distant when the medical faculty of this or any other enlightened portion of the globe will credit the idea that the waning health of a human being can be restored or benefited by artificial syphilization, as intimated by the Norwegian professor. Certain it is, that no human providence can calculate or guard against the physical mischiefs that might accrue to individuals subjected to this hypothetical and insane line of treatment. Instances of the most terrible disas-

* Boeck deprecates the use of mercury, which he calls a devilish remedy. He holds syphilization not to be merely a local process, acting by derivation or by reparative suppuration, but to be analagous to vaccination; that it fixes a certain materies morbi of the body, and renders it latent, but does not destroy it. Neither syphilization nor mercury, according to this author, really cures syphilis, but only renders it innocuous.

ters resulting from it have already been reported. Mr. Lawrence, of London, states that one of the most troublesome cases of phagedænic ulceration of the thighs which ever came under his notice, was in consequence of artificial inoculation performed by a physician. Other instances are recorded, in which the chancrous sores, manufactured by reckless hands, have refused for a long time to heal or amend under any remedial measures. It may be that the experience of Turenne and others will inspire hope and courage among libertines and their meretricious companions, who hail from the dens of Paris and some of the other continental cities, and who may be induced to submit to such a style of tattooing and mutilation; but it is scarcely to be supposed that the medical faculty of this country will ever countenance such a beastly mode of treatment, — certainly not until investigations and experiments shall ripen into higher completeness, and the sanative power of the measure has had time to exert a more persistent influence than has yet been displayed in patients who have resorted to prophylactic syphilization. Without entering into any discussion of the real truth or fallacy of the doctrines broached by the advocates of artificial inoculation, it is enough to say that the demoralizing associations and consequences connected with the practice, are sufficient to consign it to unqualified condemnation. The most revolting feature appertaining to syphilization, and the one calculated to provoke unmitigated indignation, consists in the bold, barefaced suggestion that it may be employed as a means of safety for persons who are as yet untainted, and who can subject themselves to this factitious disease, and ever after be shielded from infection, however deeply they may plunge into the foul cess-pool of licentiousness and corruption. The next step in the march of improvement, peradventure, will consist in the internal administration of pure venereal pus, or perhaps the mollified crusts of rupia, made into a paste or bolus. This would be a fitting climax.*

* Two physicians have lately been tried in a court of justice in France, for practising artificial syphilization on a young boy at a charitable institution. The boy had favus, which got well after syphilization was resorted to. The court, however, ignored the pretensions of medical science in the case, and imposed a fine on the physicians for giving the boy the venereal disease, and which he might transmit hereafter to his offspring.

The organs composing the emunctory system — that is, the liver, the kidneys, the alimentary canal, the entire circle of the mucous membranes, and the skin, with its millions of sudoriferous and sebaceous glands and ducts — constitute the machinery — the channels — through the medium of which the syphilitic poison can be removed from the animal economy. Although the anatomical apparatus we have to work with is situated in different portions of the frame, and in structure possesses no special homogeneousness or resemblance in its several parts as above named, yet as a group, and in respect to function, they sustain a close affinity or relation; and fortunately, in a practical point of view, they can be brought to do good service either by the same remedial agents, varying in quantity and in the modes of administration, or by different remedies so compounded as to perform a harmonious action, and leading to the same practical results. And thus, if a case of constitutional syphilis be cured, it is in this way that these emunctory forces, inherent in the system, carry away day by day, in homœopathic quantities, the poisonous element, until the last particle is exhausted, and the morbid process engendered by its presence is brought to its final rest.

Methods of Treating Syphilis. — Statistics of the various modes of treatment that have been pursued, from time to time, in different countries, are sufficiently numerous and comprehensive; and, if the numerical computation were adopted as the basis upon which to form an opinion relative to this or that method of cure, all parties might claim success, and even triumph, for their cures are reported in figures running up to thousands and hundreds of thousands. And if we can rely upon human testimony, we are compelled to admit that the venereal disease, in all its forms, can be cured in more ways than one, — that is, either with or without mercury.

Of the great variety of remedies that have been arrayed against the malady under consideration, probably no one has encountered more formidable enemies, fought harder battles, or achieved more signal victories, than mercury. During the last hundred years, the fortunes of this article in the materia medica, like the fortunes of some men, have been somewhat checkered. At one period it has enjoyed the sunshine of favor

throughout the medical world; at another, it has been doomed to fall into disrepute, and to give place to the vaunted claims of various rivals, which, in turn, have lived out their brief day of popular notoriety, and then dropped into the grave with the pall of oblivion upon them. And now, again, it may be said that the medicine in question has been resuscitated, Phœnix-like, from its ashes: for at the present day it is regarded by the chief savans in the profession, not perhaps in the light of a specific antidote to syphilis, as it once was, but as indispensable to its best management in a great majority of cases; and the stability of its popularity, as it is now considered and modified, can scarcely be questioned.

It seems but fair, in this connection, that the substance of the experiments that have been tried, for the purpose of testing the claims of the mercurial and non-mercurial treatment of syphilis, should be stated. This will be done with all convenient brevity.

Some years ago, the results of two thousand cases occurring in two years, in the British army, were reported under the supervision of the late Sir James McGrigor. These were all represented as cases of primary syphilitic ulcers on the penis, and were reported as cured without mercury. The average length of time required for the non-mercurial course to complete the alleged cures, where no buboes existed, was twenty-one days; for those with buboes, forty-five days. From these results, it would appear that primary venereal sores can be cured without mercury, and in a shorter period than when that mineral is used. But, while this statement has been made by the advocates of the anti-mercurial treatment, they at the same time acknowledge the utility of mercury under certain circumstances, and admit that some cases prove obstinate unless this remedy is employed. When these peculiar cases are likely to occur can never be known beforehand by the medical attendant. It would therefore seem to be wiser policy to anticipate them in the onset, by the timely and careful use of mercury, rather than trust to a code of practice which may not in all cases secure the desired results without an appeal to some mercurial preparation.

In 1828, experiments instituted by Dr. Fricke, in the Hamburg General Hospital, were first made public. In four years, out of one thousand six hundred and forty-nine patients of both

sexes, five hundred and eighty-two were treated with a mild course of mercury, and one thousand and sixty-seven without mercury. The mean duration of the latter method was forty-one days, and that with mercury eighty-five days. Dr. Fricke states that relapses were more frequent, and secondary accidents more severe, where mercury was given. He observes, also, that he has treated more than five thousand patients without it, and has still to seek cases in which that remedy may be advantageously employed.

In 1833, the French Council of Health published the reports sent in by the physicians and surgeons attached to regiments and hospitals in various parts of France. Some of these reports were in favor of the mercurial method, others adverse to it.

From various published documents, embracing more than 80,000 cases, Professor Bennett, of Edinburgh, regards it as established that primary syphilis is cured by what is termed the simple treatment more readily than by any other, and with less probability of the occurrence of secondary symptoms. He considers that the diminution in late years of the frightful secondary and tertiary accidents, which were so common many years ago in Scotland, is to be attributed to important revolutions in practice; and he is inclined to award the credit to the non-mercurialists, and, so far as relates to the treatment of the venereal disease, he belongs to that class of practitioners. His views, however, of what constitutes the mercurial treatment appear to be different from what the present mode of practice would seem to sanction. He remarks that this treatment consists in keeping up a slight salivation, at least, for the space of a month. Such a mercurial course would doubtless, in many cases, be well nigh as destructive to the patient as the malady which it was intended to cure, and no wonder that Professor Bennett and others object to it. But this is not the method that is advocated or practised at the present day by any intelligent mercurialist. Indeed, the very term mercurialist, in the signification attached to it thirty years ago, is perfectly obsolete in this country, at least. The word was applicable to a class of practitioners who flourished some half a century since, and are now dead.

It has not only been demonstrated that all syphilitic manifestations, whether primary or secondary, may be removed without

the aid of mercury, but also that, in some cases, the work is accomplished in a shorter period where this substance is not prescribed. Ricord treated with mercury two hundred and ninety-two men, and, without mercury, five hundred and ninety-eight. It required forty-two days, on an average, to cure the former, and only twenty-eight days the latter. Thus it appears that the use of mercury delays the healing of the primary lesion by one third the period required when that mineral is not employed. It is admitted, however, that, in cases accompanied by much induration, the administration of mercury materially shortens the duration of the chancrous sore.

With regard to the greater or less frequency of secondary symptoms, after the removal of the primary accidents, treated with the use of mercury or without it, I am persuaded, from reliable evidence thus far adduced, that such symptoms are more frequent in cases where mercury has not constituted an essential part of the remedial course. I am unable, however, to credit the statement of Mr. Bacot, who says that secondary symptoms occur in the proportion of one case in ten where no mercury has been used for the cure of the primary affection; whilst, on the contrary, the proportion of such cases is only one in seventy-five where that remedy is employed. Would that this statement in all its particulars were true, but the history of syphilis, as now seen, does not correspond with the remark of Bacot. The proportion of cases in which consecutive lesions appear is much greater than he mentions. "I cannot agree," says Erichsen, "with the statement that secondary symptoms are less frequent after the simple than after the mercurial treatment of syphilis. I have seen the non-mercurial plan of treatment very extensively employed at the University College Hospital: indeed, it was formerly almost invariably practised there, more particularly in the syphilitic cases occurring among out-door patients under the late Mr. Morton, who strongly advocated it; and I have repeated occasion to observe the frequency with which it was followed by secondary symptoms. In private practice, also, I have had considerable opportunities of comparing the two methods; and I can safely say that I have seen the simple treatment more frequently followed by secondary symptoms than the mercurial plan has been when properly and judiciously employed."

The advocates of the simple treatment are doubtless correct in the idea that mercury has no specific effect upon the syphilitic poison, but that it acts, like other remedies, as an alterative, by increasing the amount of secretions and excretions; and thus, we argue, that it favors the elimination of the venereal virus. Although I am far from believing that the mercurial preparations justify all that has been advanced in their praise, I am by no means disposed to discard them from the catalogue of our most useful remedies in the treatment of various syphilitic affections. I employ them as valuable and important additions to the simple plan of treatment. I have faith in them; but it is a modification of the faith, which, thirty years ago, ruled and misguided medical practice far and wide. For the cure of indurated chancre they are almost indispensable. But great circumspection is demanded in their administration. Their influence upon the general condition of the patient, as well as upon the disease, cannot be too carefully watched. In many cases it is undeniable that mercury aggravates all the symptoms. One of the earliest and most frequent forms of syphilis, in which it is mischievous, is the non-indurated chancre or ulcer, the cure of which it tends to prevent by altering the system in such a manner as to favor the progress of ulceration, rather than arrest it; and it cannot in any way protect the patient from secondary accidents under these circumstances. It is well known, also, that mercury will sometimes induce ulcerations *sui generis*. The fault, however, is not always in the medicine, but, rather, in the manner of prescribing it.

In the treatment of patients of well-known scrofulous diathesis, or in whom any peculiar susceptibility to the action of mercury exists, it is generally an easy matter to regulate the dose so as to meet this peculiarity, provided it is certain that the remedy is demanded. But the mere fact that any idiosyncrasy does even exist in the patient, should deter from the use of any mercurial agent, except in the mildest form, in the most cautious manner, and as wholly subsidiary to other therapeutic measures.

In all instances where there is a tendency to sloughing, whether in a primary chancrous sore, in a bubo, or in any of the later affections, the mineral of which we are now speaking

ought to be regarded as injurious, if not absolutely dangerous, to the patient, and therefore inadmissible. It is not my purpose, however, to set forth, in this place, a full specification of the circumstances and conditions of the syphilitic patient, which render the administration of this potent remedy, in any form or combination, judicious or otherwise. Occasions for speaking more explicitly will necessarily occur with sufficient frequency, as we proceed to a consideration of the various accidents that will present themselves for treatment.

In the selection of mercurial preparations for internal use, every practitioner is more or less partial to some particular formula. The blue pill and the hydrargyrum cum cretâ are preferred by some of the most substantial English surgeons and physicians. The protochloride, the bichloride, the iodide, and the biniodide, have likewise their advocates. Mr. Wilson and Dr. Egan are in favor of the blue pill. The latter writer recommends that gentle ptyalism be maintained for several weeks; but I feel warranted in stating that the leading practitioners in this country do not sanction or follow such advice, whatever they may have done in years gone by. The blue pill is easily managed. One at night, for five or six nights, either with or without a small quantity of opium, according to the irritant action of the pill upon the bowels, will answer. After some half a dozen pills have been taken, one may be given in the morning also, or every other morning. This cautious proceeding, which is recommended by Mr. Wilson, should always be observed for the first few days, whatever be the form of mercury selected for use, because its effects upon the system have not yet been ascertained; and if any peculiarity exist, it will readily be discovered. If the hydrargyrum cum cretâ be preferred, the proper dose will be three grains, which are about equal to five grains of blue pill, twice a day.

It was once considered important to provoke the salivary apparatus to copious ptyalism in order to obtain the greatest benefit from the mercurial treatment. The medical men of the old school probably never felt in a more jubilant mood than on those occasions when they witnessed the flowing streams set in motion by the potent magic of calomel, administered by their own hands. More recently, the opinion has prevailed that a constant, although moderate, soreness of the gums is

all that is necessary. These two methods seemed to be based on the theory that the morbid effect of the medicine upon the healthy tissues, must precede its salutary action on the diseased structures; whereas, it will appear evident, if we carefully watch the influence of the mercury upon the symptoms, that if the amendment take place at all, it commences before the gums become red and tumefied. The remedy produces the good before it does the harm. We can now take a retrospective view, and see that in the treatment of the disease with mercurial preparations, the various mischiefs which have been inflicted upon the gums, the teeth, the buccal mucous membrane, the salivary glands, and even upon the constitution itself, were unnecessary and barbarous. Had the prudent method of Erasmus Wilson been adopted half a century ago, the prejudice against mercurials would never have existed — a prejudice which had its foundation in the evil practice of giving the mineral in question with a recklessness which seems almost incredible, and which, if pursued at the present day, would be almost suicidal to the medical men who should countenance it. This treatment, to which was usually joined a process of semi-starvation, was called heroic. It was so with a vengeance. Fortunately for the poor wight who has syphilis, a more enlightened and auspicious epoch in the career of medicine has arrived; and the action of mercury, and its absolute value in subduing certain symptoms, arising from the syphilitic virus, are now better understood. Implicit faith in the power of this therapeutic agent no longer exists in the ranks of the medical profession; and since it has been their custom to prescribe it in fewer cases and in vastly less quantities than formerly, the venereal disease has ceased to commit such terrible ravages on the human organization. It need not be repeated that in the administration of mercury it is never requisite or desirable to salivate. The venereal poison cannot be drawn into such an unnatural current, and through this be piloted out and disembogued from the system. The patient cannot spit out the disease. To attempt its elimination by establishing an artificial drain through the salivary apparatus, would be like beating the air with a feather with a view to expel from it the miasm of yellow fever. In both cases, the poison is endowed with a sort of ubiquity; in the one, pervad-

ing the human constitution; in the other, that of the atmosphere.

The ultimate point to which we should ever push the use of mercury, is, merely to increase the redness of the gums; and this increase in the vascularity of the capillaries of the mucous membrane, should be regarded as a warning to withhold the article entirely for a few days, or else to employ it in very much diminished quantities.

In some instances, persons, who have doubted their ability to take mercury in any form or quantity, on account of the facility with which they imagined ptyalism would occur, have been prevailed upon to make trial, with the promise given to them, that the moment any special physiological effect is displayed in the condition of the gums or breath, the medicine will be discontinued; and in scarcely a single instance has the apprehended evil or disability been realized. In prescribing mercury, nothing is gained by being in a hurry. On the contrary, by a little patience, the physician will rarely fail to manage the patient in a manner that will not disturb the system, which can gradually be brought to tolerate the medicine to the extent required, not only without inconvenience, but with all desirable comfort and advantage. If received into the stomach in connection with the meals, it has appeared to be borne more quietly than when taken under other circumstances; and it is not improbable that by accompanying the food, being incorporated with it through the different stages of digestion, and mingling with it in its progress to be transformed into blood, and finally gaining access to the most minute ramifications of the tissues, it permeates the entire organization more freely than it otherwise would. I therefore always direct the patient to take it immediately after eating; and when this rule is observed, it produces no pain, griping, or other trouble in the alimentary canal, — considerations of no small importance. The late Mr. Babington recommended that mercury be used as here mentioned. Of course it cannot be regarded as part and parcel of the aliment of the economy; and yet it fulfils a purpose scarcely subordinate to it in the circumstances requiring its employment, for it serves as a substitute, and sometimes more than an equivalent, for any other medicinal substance. When properly administered, it acts as

a benign and safe alterative upon the skin, kidneys, liver, and gastro-pulmonary mucous tissue simultaneously. Does not this effect upon the emunctory system afford a solution of its modus operandi in the cure we seek to accomplish? And does it not, without any forced or far-fetched argument, justify and commend its use? It is not simply because two poisons cannot exist in the system at the same time, as was first broached by the sagacious Hunter; but because it stimulates to greater activity the different eliminative organs, between which nature has established a consent or unity of functional labors.

The mercurial practice has now become venerable with age, and a cloud of witnesses, both among the living and the dead, and of the highest distinction in the profession of medicine, might be adduced to testify to its efficacy; but such a marshaling of names is uncalled for; nor is it necessary at this day for any man to enter the lists as a special champion in its defence.

In commenting upon the use of different mercurial preparations, I have made no particular allusion to the external employment of the mercurial ointment. Formerly, inunction was a prevalent method of subduing venereal symptoms. In later years, this plan has been to a great extent laid aside, in this country at least. It is still regarded by some of the most eminent German physicians and surgeons as preferable to any other treatment. Professor Carl Sigmund in a recent publication, says: "While we write these lines, the result of the records of cases [at the Vienna Hospital] from the year 1842 to 1855, lies before us. 9,379 cases treated by the external use of mercurial ointment as here laid down, justify the statements which we have just made. . . . Our observations have been verified by patients from all professions and all ages, and in all the five parts of the world our followers have confirmed these observations, in cases without number. We, therefore, think ourselves authorized in asserting that until a remedy equally good or better shall be pointed out, mercury, and above all, mercurial ointment externally, is to be preferred to all other remedies." Professor Hebra, of Vienna, agrees with Sigmund as to the superiority of mercury, and particularly of the ointment.

It has already been remarked that the malady under consideration has, ordinarily, its initial development in chancre. But it does not stop here. Its tendency is to pursue an aggressive

course; and when not disturbed by the interference of the surgeon or physician, it describes a cycle of phenomena, — primary, secondary, and tertiary, — with great regularity, just as we witness in variola, vaccinia, or rubeola, except that its different evolutions and periods require months or years, instead of days, for their completion. But if the patient has undergone medical treatment, the normal series in the chain of successive manifestations is frequently broken, and the symptoms are developed in an irregular manner. For instance, the use of certain drugs may keep at bay the secondary accidents, but not annihilate the syphilitic diathesis, and a train of tertiary affections, over which the treatment has exerted no control, may appear. Such instances every now and then present themselves.

In more particularly presenting the plans of treatment, it will be advisable to speak of the disease separately in the three principal pathological stages, into which syphilographers have agreed to divide it. These several stages or forms, namely, the primary, the secondary, and the tertiary, have each their individual and well-marked characteristic features, which, for the most part, appear in uniform, chronological order, and with almost mathematical precision; and as chancre claims priority, it will be the theme for consideration in the next chapter.

CHAPTER XIX.

CHANCRE.

Of the primary sores, there are several varieties. The indurated form first claims our attention. It is generally admitted by surgeons that as soon as a chancre has become indurated — which usually takes place during the first week or two — and is the true, classical, Hunterian chancre, the disease cannot be regarded as any longer a purely local affection; and the probability is that the abortive treatment can do the patient no good. For this, the golden opportunity is lost. Cauterization and caustics are, under ordinary circumstances, excluded from the list of curatives; and if thought of at all by the practitioner, it is only that he must say of them to the patient, — it is too late for their successful employment; for induration is almost a certain proof that the system is contaminated. Ricord believes that to this rule there is no exception, and that it is the prerogative of indurated chancre, alone, to impregnate the system. Upon this latter point, however, there is not a uniformity of opinion. Facts are almost daily brought to light in the history of syphilitic patients, which totally contravene the theory that an individual, who has secondary symptoms, must have had an indurated chancre at some former period. The doctrine so strenuously insisted upon by Ricord, is not sustained by the observations of other authorities, who are entitled to be heard on this subject, and who do not confine the origin of constitutional syphilis exclusively to indurated chancre. I refer to the teachings of such men as Vidal, Wilson, Lane, Sigmund, Trousseau, and Velpeau. In my own practice, several instances of secondary accidents, in adult subjects, have occurred, in which the parties were totally unconscious of having had primary disease. Of this I am certain. Is it possible that in each of these cases a concealed chancre existed? If so, it must have healed spontaneously, and without causing enlargement of the

inguinal glands. This supposition, to me, seems unreasonable. Some of the cases to which I here refer, will be related in connection with secondary affections.

The indurated chancre is rarely followed by a suppurating bubo, although tumefaction of the inguinal glands usually takes place on both sides, — not, however, in all instances, as stated by some writers. Some years since, I saw a case of indurated chancre in a patient of Dr. John Homans, of this city. The glands on the right side, only, were involved. Consecutive secondary and tertiary symptoms supervened and lasted for a long period. In the early part of March, 1857, a married man came under my care for a large chancrous sore, situated on both sides of the frænum, and implicating this membranous fold, which was finally destroyed by ulceration. Four chancres, of veritable Hunterian type, next appeared upon the external surface of the prepuce near its border; and subsequently, a chancre formed upon the abdomen, by accidental inoculation, just below the umbilicus; and lastly, one on the dorsum penis, — also by inoculation from the patient himself, — near the pubes, — making a total of seven chancres on this man. The healing of these primary lesions consumed more than five months' time. During the early period of the first sore, a bubo of medium size came in the left groin, and remained six weeks. The other inguinal region continued in a perfectly normal state. The treatment for this patient consisted, internally, of bichloride of mercury in pill, and for external dressings, the black wash, aromatic wine, and weak chlorinated water, and the nitric oxide of mercury ointment. Blisters were applied over the tumified inguinal glands.

Although there is no specific for the cure of any syphilitic affection, I feel justified in saying that for indurated chancre mercury is the surest and safest remedial agent we can employ. Its salutary operation in obliterating the induration without detriment to the system, is now acknowledged, almost without a dissenting voice, in the highest circles of the profession. But let us be sure that we have an indurated chancre to cure, before we prescribe this remedy. The particular form which may be chosen, is not a matter of very great importance. In certain cases, each preparation may have its advantages or disadvantages; but both are to be regarded as mere casual circum-

stances, that are not inherent in the medicine. The submuriate is quick and rather harsh in its action; but in cases of iritis, where there is no time for delay, and where a mercurial has been determined upon, it is particularly appropriate. It is less valuable and less called for in indurated chancre. It is more liable than the other mercurial salts to disturb the bowels and debilitate the system to a greater degree than is desirable.

Plethora, and an anæmic condition of the patient, are both unfavorable for the advantageous exhibition of mercury. In the former case, before commencing with this article, it will be best to reduce the system by a spare diet for three or four days, and by the use of a moderate saline laxative, after which the mercurial treatment will be admissible. If the patient be pale, feeble, and wanting in constitutional vigor, mercurials should be dealt out in the most sparing manner, if at all; and given in connection with some ferruginous medicines. Of these, the tartrate of iron and potash is by far the best. Whenever a tonic is required, as an adjuvant to mercury, the following is entitled to precedence above all others: —

℞. Ferri Potassio Tartratis, ... ʒ j.
Aquæ Fontanæ, ... ʒ viij. M.

Two teaspoonfuls of this solution may be taken three times a day in a decoction of quassia prepared as follows: —

℞. Quassiæ Rasuræ, ... ℈ xij.
Div. in chart, No. vj.

Steep one parcel in a pint of water for an hour. Strain the decoction, and let a gill of it be taken with two drachms of the above ferruginous solution.

An ounce of the potassio-tartrate of iron, of ordinary samples, is as much as can conveniently be dissolved in eight ounces of cold water. There is quite a difference in the solubility of this salt as prepared by different chemists. Specimens which I have seen and used from Messrs. Morson & Son, of London, I think are superior to any other. One ounce of their preparation will readily dissolve in six ounces of water.

The citrate of iron and quinine makes a good tonic also, and may be taken in conjunction with any of the mercurial salts, if

the individual find it inconvenient to make use of the first mentioned chalybeate. The citrate may be given in pills of four grains each, of which three may be taken *per diem*. Should constipation be induced, it may be counteracted by the occasional use of syrup of senna, by eating freely of fruits, and by other suitable diet. If the blue pill be selected, as a general rule one may be taken at night with the fourth of a grain of opium, and one in the morning without the opium. Should the patient become costive in consequence of the opium, then the morning pills may be given in the evening as well as in the morning. On the contrary, if the bowels are relaxed, the opium is to be taken in the morning as well as at night. With this variation in the pills, the mercury may be continued until the sore has disappeared and the hardness of its base subsided, unless symptoms arise that indicate an approaching ptyalism. This, in substance, is the plan proposed by Professor Wilson. The beneficial action of the remedy is usually manifested in a few days. The average time which the indurated sore requires for passing through its different stages, before cicatrization is fully accomplished, is, under favorable circumstances, four weeks. During the mercurial course, the patient should be carefully watched, and be kept from all exposure to inclement weather.

Ricord is partial to the proto-iodide of mercury for the cure of the Hunterian chancre. This preparation is perfectly manageable with most persons, and may be prescribed according to the subjoined formula: —

℞. Hydrargyri Proto-Iodidi, ... ℈ ij.
Extracti Hyoscyami, ... ʒ j.
M. Ft. pil. No. xl.

Give one pill at night. At the end of a week, two pills *per diem* may be ordered, one in the morning and one at night. The good effects of the medicine are observed in the condition of the induration, which diminishes in extent and hardness; the discharge consists of well-elaborated pus; the surface of the sore presents a clean, healthy aspect, is covered with granulations, and a cicatrix is soon formed. These results follow when any of the preparations of mercury act kindly. The patient should continue one pill, or half of a pill, each day, for two or three weeks after the induration has disappeared. The absolute

quantity which may be requisite in any given case, is to be determined, not only by the cicatrization of the lesion, but also by the perfect resolution of the induration, which is the last abnormal condition to yield.

Some authorities recommend not to employ mercury during the first few days after the appearance of the induration. The object of this delay is to ascertain if nature will not remove the hardness, and thus prove that it is not of a specific character. If a man present himself with a sore having a hard base, this sore being the result of a suspicious connection had a few days previously, the temptation to prescribe mercury at once, is very strong, provided the practitioner designs to trust to this remedy at all; and yet, the advice to defer the employment of mercury, is good. The induration may be like that met with in acne, and not the persistent, cartilaginous mass, which constitutes the floor of the true Hunterian chancre. It has already been stated that the form of indurated ulcer described by Hunter, as having a hard base, with a margin terminating abruptly, and not extending itself into the adjacent tissues, is seldom met with.

In carrying out the general rule that mercury should be given as long as the induration continues, and even longer, the practitioner must not forget that in some protracted cases, the mass may consist of something more than specific induration. It may be composed of organized tissue, which cannot be removed or acted upon by the mercury, however long persisted in. This fact has been confirmed by Wallace and others. Persons have been known to bear traces of induration for years after a course of mercury has been discontinued, and yet no secondary symptoms have followed. It is evident, therefore, that the directions given by some writers, for the administration of mercury so long as any hardness remains at the bottom of the chancrous sore, or where this sore was, are not to be implicitly observed. Out of thirty cases reported by Dr. Egan, the induration passed away in twelve, after moderate salivation. In the remaining eighteen, it persisted for an indefinite period after the effects of mercury had ceased, notwithstanding which, no symptoms of constitutional infection were observable, although many of this class of patients were detained in hospital a long time in the anticipation of such an occurrence.

Those who give preference of the proto-iodide over other

forms of mercury, claim for it that it will not only cure the local disease, but that it will likewise, in a majority of cases, secure the patient from secondary symptoms; or, if secondary affections supervene, they will be of a mild type, and the constitution, not being injured by the previous use of the medicine, will bear it a second time, if need be, not only with impunity, but with every advantage. The same may be said, however, in regard to any mercurial preparation, with equal truth. If administered properly, there is no danger; their abuse is the evil to be avoided.

There is one preparation of mercury — the bichloride — which, for more than three quarters of a century, enjoyed the confidence of the most distinguished members of the profession in this country and in Europe for the cure of syphilis, but which, of late years, and without any good reason, has fallen into desuetude in some quarters. In the constitutional treatment of indurated chancre, and indeed of all specific symptoms, Drs. David Hosack, and John W. Francis, of New York, during the most brilliant period of their professional career, were accustomed to employ this salt to the exclusion of every other mercurial.

Of the merits of the bichloride, Dr. Hosack says: "In the constitutional disease called syphilis, as a general rule I have found the internal preferable to the external use of mercury, and the mercurial salt, which, from experience, I recommend as combining most advantages, and as agreeing best with the greatest number of cases, is the corrosive sublimate, or the oxymuriate of mercury. This salt, either in the form of pill or solution, I have uniformly employed in the cure of syphilis, not only when the disease may have been recently contracted, but in the most malignant form which it assumes, when it has been neglected or injudiciously managed. A valuable auxiliary will also be found in the decoction of the lignum guaiaci and the radix sarsaparillæ as powerful alteratives. Here I cannot but protest against the salivating system by friction with mercurial ointment and the use of calomel, so commonly had recourse to. It is true that these forms of exhibiting the article very soon affect the system; but it is no less true, that when mercury exerts its influence upon the salivary glands, in proportion as

this influence is manifested, it ceases to operate upon other excretions of the system, and consequently is less active in eliminating from the body the poison of the disease. Salivation, it is now well ascertained, is wholly unnecessary in the treatment of syphilis, and the knowledge of this truth cannot be too extensively circulated in a country, where, notwithstanding the respectable state of medical science, many of the most pernicious errors of some of the older practitioners, are still sedulously cultivated. I am aware that in certain of the public hospitals of Great Britain, as well as of the United States, the corrosive sublimate is rigidly prohibited for the cure both of the primary and secondary stages of lues venerea; but it deserves to be recollected that this form of mercury still retains, throughout the European continent, the high celebrity it acquired long since as an anti-venereal. In the venereal hospital of Paris, the largest and one of the best conducted establishments of Europe, the corrosive sublimate is the only form of mercury employed; and Professor Cullerier, after the most ample experience at this charity, knows not an instance of failure with this remedy, or one in which it has produced injurious effects."

I will present the views of Dr. Francis, as expressed in an Essay published in the Medical and Philosophical Register some years since:—

"Among the principal advantages which the corrosive sublimate possesses over every other preparation of mercury, are, that judiciously administered, it is particularly mild and safe in its operation; will admit of more extensive use in all the various forms of lues venerea, and subject the patient to fewer inconveniences; that it enters readily into the general circulation, becomes miscible with the several fluids of the body, the soonest arrests the progress of the complaint, and eliminates the morbid matter through those emunctories of the body best calculated for that purpose; that it supersedes the necessity of salivation by its action on all the secretions, and by promoting, especially, the cuticular discharges and the evacuations from the kidneys; that it is the only preparation to be depended on in those peculiar habits of body so susceptible to become salivated by every other form of mercury now in use; that in its ultimate effects upon the constitution, it is attended with comparatively no injury. These facts are indeed truly

important, and many of them are granted by those who altogether reject the use of this preparation."

One hundred years ago, the bichloride of mercury was administered in the right way; and its power, as manifested through the skilful use of it by the celebrated Locker, chief surgeon to the Venereal Hospital of Vienna, has not been surpassed by any article employed since his day. He states that he cured 4,000 cases of syphilis, in different forms, with the corrosive sublimate alone, and without inducing salivation, or any unpleasant constitutional effects. These cases were all treated between the years 1754 and 1762.

A late number of the London Lancet, referring to the oxymuriate of mercury, has this expression: "The bichloride is borne better than any other form of mercury, and can be continued with safety longer than any other mercurial preparation." *

If the bichloride was ever entitled to the confidence of the profession, it is worthy of that distinction now. Time has not impaired its therapeutic qualities, — time has not modified the nature of the venereal poison, nor has a change come over the organization of the human system. The three are the same now that they ever were, — a like immutability in regard to them must always remain; and the same relations and the same influences must always subsist between them. And it is certain that all the anti-venereal qualities, which belong to any of the modifications of mercury, or to any of its combinations with other ingredients, exist in the greatest simplicity, uniformity, and purity, and in an eminent degree, in the corrosive sublimate. "One would naturally suppose," says Hunter, "that the simplest preparation is the best, — that which is easiest dissolved in the animal juices, does least mischief to the stomach or general health, and is least disturbed or hindered in its operations; for we can hardly suppose that any substance joined with mercury, which alters either its chemical or mechanical properties out of the body, can add to its power in the body, excepting a substance which had a similar power when acting alone."

The names of the two American physicians, who have just been mentioned, are among the most eminent that ever flourished in the annals of medicine in this or any other coun-

* Lancet, 1857, p. 581.

try; and their opinion is most important evidence in favor of the remedy now under consideration. The practice of Dr. Hosack, as set forth in the preceding extract from his writings, of administering the oxymuriate of mercury for the cure of all forms of constitutional syphilis, was almost precisely the same as that followed by Dupuytren at the Hotel Dieu of Paris, where the oxymuriate was long in vogue as a favorite anti-syphilitic. Employed in the careful manner indicated by our distinguished countryman, it was doubtless superior in efficacy to any other method known in his day; and on the authority of his great name, the same course was pursued by the leading practitioners of this country in the management of the venereal disease in all its stages. But now a different policy reigns. The use of mercury is very much confined to the treatment of indurated chancre; and if prescribed for secondary affections, it is, in many cases, as an auxiliary to other medicinal agents, rather than as the sole or leading one.

The most convenient way of administering the bichloride is in the form of a pill, combined with an equal quantity of the muriate of ammonia: —

℞. Hydrargyri Chloridi Corrosivi, ...
Ammoniæ Muriatis, āā, ... gr. xvj.
Aquæ Destillatæ, ... ʒ iss.

Solutioni addatur, panis medul. sic. q. s. — Ut fiat massa, in pil. cxxviij. dividenda.

This formula gives one eighth of a grain of the corrosive sublimate to each pill. The quantity can therefore be regulated with the greatest precision for daily use. One pill morning and night in immediate connection with the meals. In five or six days one pill may be taken three times a day. Should the patient be of a delicate constitution, two pills *per diem* may be sufficient to produce the desired result. Some individuals, especially females, complain that they cannot take pills. In such cases, the annexed prescription can be directed instead of the preceding: —

℞. Hydrargyri Chloridi Corrosivi, ...
Ammoniæ Muriatis, āā, ... gr. vj.
Tincturæ Cinchonæ Compositæ, ... ʒ ij.
Aquæ Fontanæ, ... ʒ iv. M.

The dose is one drachm morning and evening for one week; afterwards, three drachms each day, directly after eating. When the bichloride has been taken for twelve or fifteen days, it is frequently judicious policy to omit it for four or five days, and then resume it as before.

Patients with indurated chancre, whether accompanied with bubo or not, should continue the bichloride for several weeks. In ordinary cases, there is no occasion for those rigid precautionary measures in regard to diet and regimen, that are recommended by some authorities; nor need the patient suspend his usual avocations from the mere fact that he is using the mercury. But very likely there may be other circumstances relating to his condition, which would render it improper for him to be abroad. Indeed, a man or woman, with an indurated chancre, will usually find the sick chamber the most appropriate place during treatment, be that treatment what it may. Among the objections of Professor Bennett to the mercurial remedies, is this: that the patient must be kept within doors, and submit to a variety of other restrictions, not required by the simple treatment. But every candid mind will admit that under any treatment, the patient will recover more rapidly, and will meet with fewer drawbacks and impediments, if he be kept as quiet as possible; and his course of living should be regulated according to his constitution. For stout, athletic individuals, of sanguineous temperament, a spare diet and a slightly antiphlogistic treatment for a few days, are indicated, before commencing with the oxymuriate; for with such patients there is occasion to guard against local inflammatory action; but for the feeble, the lank, the lymphatic, who, perhaps, are already suffering from defective nutrition, such a regimen and such a process of reduction would be prejudicial. For the latter class of patients, a generous diet, and the employment of mild tonics, in conjunction with the mercurial, will be productive of the most desirable effects. Whatever measures may be calculated to rectify any abnormal condition of the system, should be put in requisition. It frequently happens that an impaired state of the constitution, or some actually coëxisting complaint, is the direct cause of the complications that accompany an indurated chancre.

While the patient is taking the bichloride or any other kindred preparation that may be selected, he will derive advan-

tage from the use of saponaria officinalis. It is commonly known by the name of *bouncing bet*, or *soapwort*. It is used extensively by the German and English physicians as an alterative, in connection with mercury. It is regarded by them as superior to sarsaparilla. The two may be used together in the form of decoction, of which a pint may be taken daily.

Among the various substances which have been employed in conjunction with mercurial remedies, the lignum guaiaci and the radix sarsaparillæ hold a high rank among many of our most distinguished practitioners; and, from experience of their use for many years, I can add my testimony in their favor. I am aware that some physicians and surgeons consider that they should be discarded from the catalogue of remedies. Such an opinion, it seems to me, must be the offspring of ignorance, not of practical knowledge. It is justly claimed for the two ingredients before us, that when combined, their salutary operation, associated with the judicious employment of mercurials, in the cure of indurated chancre, has been uniformly evinced in the most satisfactory manner; and the compound decoction of guaiacum and sarsaparilla has for years been a favorite drink with patients having any syphilitic complaint, whether recent or of long continuance. It is prepared thus: —

℞. Guaiaci Ligni Rasuræ, ...
Radicis Sarsaparillæ Fissæ, āā, ... ℥j.
Coq. in aquâ fontan. lb. ij. ad lb. j.

Of this decoction, the above quantity is to be taken, warm, in the course of twenty-four hours. Although its effects are to be attributed chiefly to its action as a diaphoretic and diuretic, yet it is a medicine of no mean value in sustaining the vigor of the constitution.* Diaphoretics and diuretics, taken liberally, are

* Mr. Travers, speaking of sarsaparilla, remarks: — "Its power is most extraordinary; more so than that of any other drug with which I am acquainted. To regard it as inert, as a mere diluent or an offensive nutrient, is either a proof of a very limited experience, or a very prejudiced observation. It is, in the strictest sense, a tonic."

The late Dr. James Johnson, of the London Medico-chirurgical Review, endorsed the views of Mr. Travers, as the following sentence will show: — "To consider sarsaparilla as an inutile lignum — a thing no better than sawdust — appears to us to be the acme of prejudice, the wild, fanatic skepticism of a book-learned theoric."

calculated to dilute the virus, while they at the same time arouse the different depurating organs to increased action; and thus the morbid element is conducted out of the animal economy faster than it is formed. Were not this the fact, how else could the disease ever be eliminated? The mere presence of mercury and other drugs in the tissues and fluids of the system would not neutralize or annihilate the poison. In the language of Dr. Graves, "syphilis and mercury are not like two opposite forces, not like an acid and an alkali, so that by putting them together you are sure to neutralize them. No; it is a melancholy fact that the constitution may be impregnated with both at the same time." Something must be done through the agency of the remedies we employ to stimulate the emunctory apparatus to greater activity than is required when the individual is in a state of health, or he can never be delivered from the enemy that exists within him. Hence the advantage of using, in the very beginning of constitutional treatment, various decoctions and diluents as freely as possible, without injuriously affecting the ordinary functions of the system. From the moment an indurated chancre has established itself upon any part, no matter where, the constitution is probably impregnated with its virus as positively as it can be at any future period, although, in regard to the quantity of the morbid matter, time is doubtless requisite for its increase. The virus is cumulative, and its ultimate bounds we cannot fully anticipate. But it would be unwise for the physician to wait until he witnessed the vitiation of the blood and the other fluids, or the death and exfoliation of the bones, or the skin here and there dissolving in ulcerated patches, before resorting to other medicinal agents as auxiliary to the mercurial treatment.

Of all the various remedies which have hitherto been, or are now, employed for the cure of indurated chancre, I am disposed to regard mercury, when judiciously administered, as entitled to bear the palm. Induced by the example of Dr. Hosack, sustained as it was by the profession generally, I was early led to prescribe it in the form and manner recommended by him, and have never had occasion to doubt its efficacy or safety. I have never induced salivation to the slightest degree with the oxymuriate pill. As a general rule, I direct the patient to prolong its use for four or five weeks after the specific sore and its charac-

teristic induration have disappeared; and to eke out the treatment for a still longer period with the potassio-tartrate of iron. Ricord advises a daily mercurial dose that shall produce a sensible physiological effect for six months. But such a protracted course seems uncalled for. I once had a patient, who was a medical gentleman, who took the proto-iodide of mercury, according to Ricord's formula. He resided at a distance, and continued the medicine beyond the time allotted. A long and severe salivation ensued, greatly to his detriment. This accident is the only instance of the kind that has ever happened to an individual who has taken any mercurial by my recommendation. But, notwithstanding the value I attach to mercury in the treatment of the indurated chancre, I am not disposed to make it a hobby, — that is, to confide in it to the exclusion of other measures. There is a more excellent way, and that way is to combine it with some of the adjuvantia that have been mentioned. They will always be found important, even in the management of indurated chancre, although they are less demanded here, perhaps, than in the secondary and still later periods of syphilis.

In regard to the amount of drinks for daily use, the judgment of every sensible practitioner will offer, with sufficient clearness and accuracy, all proper suggestions. So, also, in reference to mercury, the medical adviser must be the judge as to the quantity any individual case may require, in order to realize the most favorable effects; and this quantity will be most satisfactorily ascertained by commencing with a small dose, and increasing it cautiously, until the desired change is experienced in the lesion, for which it is given. Surely the surgeon need not be told of the ever-varying differences and peculiarities that are constantly met with in connection with this disease, and with the employment of mercury; and that no absolute rules can be laid down as to the quantity or form of the medicine, that may be best for the case in hand; — nor will any medical man of observation and reflection allow himself to be wedded to any exclusive system, or to be governed wholly by arbitrary prescriptions. It should be borne in mind, however, that the quantity of mercury, which we are always compelled to give for the cure of indurated chancre, has a direct tendency to impair the vigor of the stoutest frame. Like opium, strychnine, and many other drugs, it will kill as well as cure, if, in the exhibition of it, it be

aroused. It is, therefore, the imperative duty of the medical attendant to prescribe it with due circumspection, and to fortify the patient against all mischief from it. To this end, recourse should be had to tonics, — of which, for syphilitic patients, the potassio-tartrate of iron is the best.

Local Applications. — As a constant dressing during the day, nitric acid, in the proportion of two drops to the ounce of water, will be found convenient and well suited to the condition of the sore. Bits of lint should be saturated with it, and applied to the diseased surface. The lint must not be allowed to get dry; but, without being disturbed, should be moistened by means of a camel's hair pencil dipped in the lotion. If the lesion be on the external surface of the prepuce, a piece of thin gutta percha should envelop the parts to prevent evaporation. At night, the nitric oxide of mercury ointment must be substituted for the wash. A weak solution of the French chloride of soda, the aromatic wine, with an equal portion of rain-water, a solution of potassio-tartrate of iron, in the proportion of a drachm to eight ounces of water, — are all entitled to favorable remembrance as suitable topical remedies. The black wash, so long known to all practitioners, is likewise valuable in many cases. Occasionally it brings out a vesicular eruption upon the adjacent integuments, and, when this happens, its employment will do harm.

In changing the dressings, delicacy of manipulation should be observed. The minute vessels of the chancre are easily ruptured, and will bleed, and the normal healing process will thereby be interrupted. In the minor surgical attentions bestowed, let me be permitted to say that everything that borders on unnecessary rudeness, or carelessness, or indifference to the comfort or feelings of the patient, should on all occasions be studiously avoided.

Salivation. — If this unfortunate accident happen from the use of mercury, the physician will probably have the mortification of seeing the disease, for which the medicine was given, assume a retrograde course; for two poisons, instead of one, are now preying upon the system. And we need not wonder at the expression of Hunter, that there are now and then appearances, which occur under the treatment, that will at first

embarrass the practitioner. "I have," says he, "suspected that mercury, flying into the mouth and throat, has sometimes produced sloughs in the tonsils, and these have been taken for venereal."

The patient requires the most gentle management. In some peculiar idiosyncrasies, the factitious disease presents a very serious and formidable aspect, — becomes chronic, and produces deep and unhealthy ulcerations in the tongue, cheeks, gums, and elsewhere within the mouth and throat; gangrene may set in, and the death of the patient be the final result. It is well for the young practitioner to be apprized of all these possible events.

TREATMENT. — At this crisis, the *chlorate of potash* will render essential service. In the most alarming cases of stomatitis, its restorative powers have been abundantly tested. A drachm of the salt may be dissolved in a pint of water, and taken in the course of the day. It may likewise be prescribed as a gargle, in about the proportions here mentioned.

It is better to order a gargle of moderate strength, which can be resorted to with freedom, rather than a more potent one, which can be employed only two or three times in the day. If ulcers exist in any part of the mouth, they will generally in a very short time exhibit evidence of improvement under the action of the chlorate. The beneficial influence of this salt, in all forms and stages of the affection, is unsurpassed by any plan of treatment that has yet been adopted.

The muriatic acid likewise makes a valuable topical application. It should be used once daily, with a bit of soft sponge, and the mouth be immediately cleansed with warm water. The acid is a favorite with Mr. Acton. He says it never fails. I have tried it, and can add my testimony in its favor. It is not safe to trust the patient with it.

The Rhus Glabrum. — An infusion of the inner bark of the root of this shrub, commonly called smooth Pennsylvania sumach, is a remedy highly extolled by Dr. William M. Fahnestock.* It may be recommended as a gargle in every stage of the disease. Dr. F. states that when the surface of the mouth

* Vide American Journal of the Medical Sciences, No. ix., p. 61.

and throat is irritated, it acts most beneficially as a mucilaginous refrigerant, astringent, and soothing application. I have never tested this article; but the respectable authority, on which its employment is brought to notice, entitles it to favorable consideration. Dr. F. regards the infusion as almost a specific in the sore mouth attending inordinate mercurial salivation.

The tongue is liable to become swollen in a manner seriously to interfere with respiration and deglutition. In such cases, it will be necessary to apply two or three leeches to the dorsum or lateral regions by means of a suitable glass tube. This method of abstracting blood is preferable to making incisions into the organ. Ulcers occasionally form on the under surface of the tongue, near its edges, where the latter come in contact with the teeth. These ulcers are attended with a sensation of smarting and burning pain, and are thus a source of great trouble to the individual. To remedy this state of things, a piece of soft lint should be soaked in a very weak solution of tannin, or in chlorinated water, and placed between the tongue and teeth. This is the best protection the case will admit of, and should never be neglected.

So long as salivation is excessive, it will be important to keep the alimentary canal in a free state by saline laxatives. Tonics and a generous diet will be required, and the patient should occupy a large and well-ventilated apartment.

CHAPTER XX.

MASKED CHANCRE.

WHEN a chancre is situated in the urethra, in the vagina, or upon the os tincæ, it is called the concealed or masked chancre. It is this chancre upon which supervene, sooner or later, these consecutive symptoms that were formerly supposed to have their origin in blennorrhagia; and hence the latter affection was believed to be a genuine syphilitic malady by some medical practitioners and syphilographers.

A chancre may exist at any point of the urethral canal between the external orifice and the bladder. The most frequent site, however, is just within the meatus; and, by everting the lips, the lesion may be brought into view, and the diagnosis clearly made out. But when the sore occupies a deeper portion of the canal, its presence is not so easily detected. The existence of a chancrous ulcer in some portion of the canal may be suspected when, in a case of blennorrhagia, the discharge does not appear until a late day after suspicious connection, — when it is intermittent, and occurs at irregular intervals, and is variable in character, being sometimes thin, scanty, and sanious, and at other times thick and profuse, or presenting a tenacious slough, similar to what is cast off from the indurated chancre in its ulcerative stage.

Sometimes a whole month elapses from the time of the last sexual exposure before the appearance of any abnormal discharge, which arises from the urethral sore. The other signs, which will aid in the diagnosis, are the presence of a distinct induration at the spot where the chancre is concealed, which can be felt on pressure with the finger. The conditions and symptoms here stated do not obtain in uncomplicated gonorrhœa. But if the chancre be too deeply seated within the canal to admit of inspection, inoculation may be resorted to as a test. It must, however, be tried at an early day, before

the sore has lost its specific character; that is, while it is extending, and before it begins to heal. If a real chancre exist, the matter introduced beneath the cuticle will be likely to give rise to a true chancrous pustule, and thus all doubt will be removed. But the patient may not apply until after the progressive stage has passed away, and then the characteristic pustule cannot be raised by artificial means. Another obstacle may be in the way of obtaining an accurate knowledge of the pathological condition of the urethra. The patient may object to any experiments, and the surgeon will be thrown back upon his own ability to decipher the true import of the urethral symptoms as best he may. It sometimes happens that the sore, resulting from inoculation, is far more difficult to heal than the original chancre; and hence, although the experiment as a test of primary syphilis, is valuable, it is a question whether it is justifiable. Does not the surgeon expose the individual to evils which he knows not of? Fortunately for all parties, urethral chancre, either in the male or female, is rarely met with. Instances have been known where gonorrhœa and chancre have been contracted during the same impure connection.

The variety of chancre now under review sometimes gives rise to very serious mutilations. If it be at the orifice of the urethra, it may occasion contraction of that portion of the canal, so as to require the long-continued use of small bougies or plugs to prevent closure of the meatus, or to expand it, and restore the part, in some good degree, to its normal condition. Sometimes, when the chancre is seated at a distance from the entrance of the canal, it causes, on healing, a troublesome traumatic stricture, which is by no means easily cured. In other instances, the ulcerative process extends through the entire parts, and perforations take place, usually immediately behind the glans penis; and large portions, even of the urethra and of the bladder, are destroyed, the patient dying in consequence.

If a primary chancre or ulcer be situated in the vagina or upon the os tincæ, the fact can be ascertained by means of the speculum. When there is such a lesion, the exudation, which it yields, consists chiefly of a slight muco-purulent, mucosanious, or ichorous discharge, which irritates the neighboring

parts; but otherwise the patient experiences no great trouble from it, unless it attains a large size. She then complains of severe hypogastric and lumbar pains, a sensation of dragging weight in the pelvis, etc. But the mere fact that a discharge exists, under suspicious circumstances, justifies the medical attendant in proposing the introduction of the speculum.

Treatment of Concealed Chancre. — If the chancre is at the aperture of the urethra, local applications will form an essential part of the treatment. The weak nitric acid lotion, or the black wash, as already mentioned, may be kept upon the part by means of lint. For ordinary dressing, either of these will answer. Should the ulcer show a tendency to extend around the entire circle of the orifice, the application of strong nitric acid will be required. If the morbid process can be kept in check, so as not to embrace the whole of the orifice, contraction, to any great degree, will not be likely to result. A short wax bougie, worn for an hour or two, morning and night, while the patient is in bed, will be useful in maintaining the normal size of the opening.

If it be ascertained that a chancrous sore has formed at a distance from the meatus, local remedies may, even here, do much for the patient's advantage. Injections of the chloride of soda — one part to twelve of water — must be ordered every hour during the day, for a few days. Afterwards, let aromatic wine, in the ratio of one part to two of warm water, be substituted, or a weak solution of the potassio-tartrate of iron — say, one drachm to ten ounces of water — can be employed with safety any number of times during the twenty-four hours. Mr. Langston Parker recommends an injection of warm olive oil, three times a day, and in the intervals the following solution of tannin and opium: —

℞. Acidi Tannici, ... gr. x.
Extracti Opii, ... gr. ij.
Aquæ, ... ℥j.
M. Fiat Lotio.

A thin shred of lint, soaked in this lotion, may be introduced into the passage, being removed when the patient has occasion to urinate.

If serious local inflammation should be present, measures are to be adopted at an early moment to subdue it by appropriate antiphlogistics. If possible, the patient should have the benefit of a warm bath morning and evening. If only one can be administered let it be in the evening. The bath will be important, not only in reducing the force of inflammatory action, but will allay the nervous irritability of the system, which is exceedingly liable to show itself at such times. If the chancre exist within the urethra of the male, he is apt to be visited with nocturnal erections. To prevent these, the physician cannot do better than prescribe large doses of lupulin, or direct a combination of camphor and hyoscyamus, thus: —

℞. Camphoræ, ... gr. xviij.
Extracti Hyoscyami, ... gr. xij.
M. ft. pil. No. xij. Dose. — One or two pills at bedtime.

The patient must be restricted to a rigid diet, and be allowed copious draughts of warm diluent drinks; he should have a moderate saline laxative every second day; be kept in bed, and free from excitement, until the active, inflammatory symptoms have been subdued. It will then be proper to put him cautiously upon a mercurial course of treatment, which is to be prosecuted as in ordinary cases of indurated chancre situated externally. The blennorrhagic symptoms, if dependent on a concealed chancre, will cease, of course, when the chancre heals. On the contrary, if the urethral discharge proceed from a different cause, the foregoing treatment will prove inadequate to its removal. The complaint is a gonorrhœa, and the patient must be put upon the ordinary course for this malady.

If the os or cervix uteri, or the vagina, be the seat of chancres, their cure will be essentially forwarded by the application of the concentrated nitric acid, or the acid nitrate of mercury. Either of these substances may be employed every second or third day. Another local remedy is the chloride of zinc: —

℞. Zinci Chloridi, ... ʒij.
Aquæ Fontanæ, ... ℥ xvj. M.

An ounce of this solution is to be injected three times during

the twenty-four hours. In regard to constitutional treatment, it is to be conducted on the same general principles applicable to similar accidents in the male subject.

The infrequency of indurated chancre of the os uteri may be judged of from the fact that Dr. Egan did not meet with a single case during his attendance at the Lock Hospital of Westmoreland for four years. This hospital is exclusively for females.

CHAPTER XXI.

INFLAMMATORY CHANCRE.

THIS is the simple venereal sore assuming an inflammatory character, and the latter condition may manifest itself at any period of the accident. Sometimes the pain, swelling, and other concomitant symptoms arise very suddenly, and increase with great rapidity; and, if not arrested, gangrene and sloughing will take place in the course of four or five days, or even in less time. Where the physician or surgeon is consulted at an early day, and adopts a careful and judicious line of treatment, this form of chancre is rarely seen. The state of things implied by the term *inflammatory chancre*, is generally induced in consequence of some irritating or caustic substance too freely applied to the simple sore or chancre, in the haste to destroy it.

Patients of irregular habits and of sanguineous temperament commonly furnish the raw material for the variety of chancre treated of in this chapter. Comparatively few cases are met with at the present day. Some years since, I saw a specimen on a young man who had been under the care of an apothecary for the cure of a simple chancre. The abortive method was tried; that is, the apothecary attempted the destruction of the sore by applying a saturated solution of nitrate of silver. It was employed daily, until a most intense inflammation was excited, and rapidly extended, notwithstanding every effort to arrest its progress. Phagedæna and sloughing supervened, and the patient was compelled, as a last resort, to submit to amputation of the penis. He suffered for a long period from secondary disease, but finally recovered, and has since been remarkably corpulent. He had led a dissipated life.

TREATMENT. — In the treatment of the patient, the ordinary principles of surgery for subduing inflammatory action must be our guide. Rest in a horizontal position is indispensable.

Without the strictest observance of this, all our efforts will be unavailing. It is better for the patient to be in bed, than to try any other method of keeping the horizontal position. If he undertake to lounge about upon a sofa or couch, with his clothes on in the usual manner, he will fail to secure for himself the advantages implied when we speak of the recumbent posture. The warm bath should be taken daily. The patient may be allowed orangeade and other refrigerant drinks; moderate saline aperients and the usual antiphlogistics are to be relied upon, until the inflammation is subdued, and the lesion brought into a healthy condition, which can be accomplished without difficulty, provided the medical attendant can maintain perfect command over the habits of the individual.

The late Mr. Key, of Guy's Hospital, had a high opinion of the cold infusion of sarsaparilla in lime-water, as a constant drink. Its power of allaying irritability of action, both local and constitutional, he regarded as incontestible in this and all other forms of constitutional syphilis. Irritability of the system is sometimes one of the most intractable symptoms to manage, and shows itself in quite a variety of ways, sometimes in the condition of the cerebral organs, sometimes in the state of the bowels, sometimes in palpitations of the heart; and at other times the functions of all these organs are strangely deranged, while the local symptoms remain at a high point of intensity. In such circumstances, the patient should be kept under the influence of opium. There is no remedy that will so speedily and so kindly minister to his relief as this. It should be employed early; that is, the moment he begins to complain of restlessness and inability to obtain sleep. If he has had a bad night, he will in the morning report himself as exhausted; and an aggravation of all the symptoms will be almost certain to ensue on the following day. Large doses of opium will not only allay the general irritability of the system, but will assuage the inflammation and pain which complicate the local accident. Whether the solid gum be employed, or the tincture, or the sulphate of morphia, is of minor consequence. Two grains of opium should be given every three hours, until a decided impression is manifested; and this impression may be sustained, if necessary, for several days without interruption. When the influence of the opium is effectual in procuring refreshing sleep

CHAPTER XXII.

PHAGEDÆNIC CHANCRE.

PHAGEDÆNIC chancre is the result of acute inflammation unsuccessfully treated. Inflammatory chancre is liable to progress to a state of gangrene and sloughing, and the phagedænic sore is the ultimate stage or point to which inflammation can extend.

Practically, the distinguishing line between gangrene and phagedæna is not very important; and yet there is a difference between the two, both in regard to the condition of the patient's system at the time, and as respects the state of the parts involved in the local disease. Abernethy employed the term *phagedæna* to express every form of destructive sore, whether owing to ulceration or sloughing. Acton's distinction between phagedæna and gangrene is clear and brief. It is this: Some local irritating agent is the cause of inflammatory or gangrenous chancre, whereas a peculiar state of the constitution exists in a patient suffering from phagedæna. In gangrene the general health is not impaired; in phagedæna it is. In gangrene there is death of the parts; in phagedæna a sort of liquefaction takes place, and a melting down of the adjacent structures, which have been previously destroyed. Dr. Egan, speaking of phagedænic, primary ulcer, confines his description to that class of ulcer which *commences* as a phagedænic sore, although he does not ignore the fact that many others may assume this character from neglect, from local irritation, or from the internal use of even small quantities of mercury. He mentions one instance, under his care, which became phagedænic from the administration of ten grains of blue pill.

The phagedænic chancre always denotes a depraved condition of the animal economy. The patient looks haggard, has what we call a broken-down constitution, induced perhaps by a

variety of causes, such as intemperate habits, excessive debauchery, and other irregularities connected with a life of dissipation, confinement in the wards of a badly-ventilated hospital, or living in any unwholesome situation, and by any other adverse conditions, which the medical attendant will do well always to inquire into. Sailors who have been engaged in long service, and who consequently have been exposed to the hard vicissitudes of the sea, and individuals of a scrofulous and lymphatic diathesis and flabby muscular fibre, are also to be included in the list of those in whom the phagedænic chancre is apt to appear. Now and then we meet with patients who are not slow to attribute this form of their disease to the improper treatment which they fancy they have received from the attending surgeon or physician; and thus the skill of the practitioner may be unjustly impugned. Not long since, I was called in consultation by a young physician, and was witness to the state of things here spoken of. The patient, however, upon being confronted and closely questioned, admitted that he had led a profligate life for years; and he was very plainly told that his condition was chargeable in every particular to his vile habits, and not to any improper medical treatment. The young physician retained the daily charge of the case, and heard no more insinuations as to malpractice.

The progress of this chancre, if neglected, is very rapid; the constitutional symptoms, to which it gives rise, are of a more serious type than those attending any other primary sore; and there is no accident, of a syphilitic origin, more worthy of the study of the practitioner than this. Let me be permitted to say, that he should make himself and keep himself familiar with its nature, and with the best mode of managing it; for he is liable to be called upon in circumstances requiring decision and immediate action. True he may not be summoned to amputate a limb; but his cool and collected self-possession, his enlightened judgment, and his practical services may be wanted in a crisis of scarcely less magnitude; and a judicious, impromptu procedure may not only save an important part of the human frame from destruction, but even rescue the individual from impending death. Sometimes, when the phagedæna seizes upon the prepuce, the whole of this membrane will be swept away in thirty hours; and where the glans is attacked, the destructive action

advances with nearly equal rapidity, involving all the structures of the organ, which in two or three days becomes a revolting mass of putridity.

The phagedænic chancre is seldom followed by secondary symptoms. In this lesion, the condition of the parts, so far as relates to contagion, is precisely what the surgeon secures when he destroys the recent indurated chancre by the application of potassa fusa, or other escharotics. In both cases, the phagedænic action cuts off the absorbent vessels, and the poison, which is still confined to its original locality, is also destroyed and cast off with the detritus of the sore. Thus the patient escapes constitutional infection. It is not absolutely certain, however, that in all cases no secondary accidents will supervene upon the phagedænic chancre. The virus may have been taken up by venous absorption, or have crept into the system through the lymphatics, before they were obliterated by the sloughing process, but the danger is very trifling; and those who advocate the old method of mercurial treatment, consider it good practice to spare the patient, at this juncture, the debilitating effects of such a course.

Treatment. — In all cases, the patient should be required to keep his bed, and, if possible, he should have the benefit of a large, well-ventilated apartment. He will need a generous diet and a good allowance of sherry wine. A decoction of hops with wine in it makes a good tonic beverage, especially for those who, while in health, have been accustomed to stimulating libations.

What has already been said in regard to the advantages to be derived from the warm bath and aperient medicines, is, in the main, applicable here. Although the evil we are now considering is due to some specific cause, it is to be treated without reference to this origin. The existing condition of the patient, both as relates to the local and constitutional symptoms, should engross the attention of the medical attendant exclusively, and the case should, in all particulars, be conducted as a simple phagedæna, uncomplicated with syphilis; for as soon as the unfavorable symptoms are subjugated, and the chancre assumes the character of a simple, healthy sore, which it can generally be made to do, it will heal without difficulty, and the patient will in all respects make a good recovery.

A majority of patients suffer extremely from constitutional irritation at this crisis, and the free employment of opium in some form will be imperiously demanded. The solid pill is, perhaps, to be preferred. In regard to the aggregate quantity *per diem*, the amount must be proportioned to the condition of the patient, and his susceptibility to the specific action of the drug. It will be safe to begin at early bedtime with a pill containing two grains. Let this be repeated every three hours, or thereabouts, until the desired effects are realized. Two of these pills will usually be sufficient to procure quiet sleep, and on the following day the patient will be likely to find himself in a comfortable state. It is, however, sometimes necessary to give six, eight, or ten grains of opium in the course of twenty-four hours. If it should impair the appetite, or otherwise disturb the functions of the digestive organs, a little wine in connection with it will, in a great measure, prevent any inconvenience. The wine will not only tend to correct any unpleasant effects of the opium, but will act in unison with it in bringing about an amendment of the patient's general condition. As soon as the morbid irritability is quieted, the amount of opium should be very much diminished.

The chlorate of potash is a useful article to be employed in arresting any phagedænic tendency, and inducing healthy action in the ulcerating surface. Internally, it may be given, dissolved in barley-water, to the amount of a drachm during the day. As a topical application to the ulcer, the annexed formula can be advantageously employed: —

℞. Potassæ Chloratis, ... ʒ iv.
Aquæ Destillatæ, ... ℥ viij. M.

To be constantly applied, as a dressing, by means of lint.*

Potassio-Tartrate of Iron. — I must again present the claims of this salt. As a therapeutic agent both constitutional and local, in the condition of things before us, it is often to be preferred to the chlorate of potash, and, indeed, to every other article in the materia medica. It was first recommended, some fifteen years ago, by Ricord, who employed it "to iron up

* Vide Guy's Hospital Reports, vol. vii., p. 331.

the blood." Where the patient is in a feeble, anæmic state, requiring a tonic course of treatment, this ferruginous preparation is entitled to the highest confidence. At the onset of phagedænic action it may be resorted to with every prospect of advantage. The opiates, which may be appropriate for a time to allay the morbid sensibilities of the patient, will constitute no barrier to the free administration of the iron. While these medicines are in constant use, an occasional small dose of castor-oil will be required to preserve the bowels in a suitable state.

For phagedænic ulcers, in whatever tissue situated, and at whatever period of the syphilitic disease, the iron will display an efficiency of power not inherent in any other remedial agent. I have employed it almost daily for about eight years, with results every way satisfactory, for the improvement of the constitution of individuals laboring under various forms of venereal affections. It is especially adapted to those cases in which the exhibition of mercurials would be prejudicial. I can scarcely overrate its value. In phagedæna all medical men agree that mercurial agents should be excluded, and all who have fairly tested the potassio-tartrate of iron, I know, will corroborate any expressions of praise I might choose to employ. I am sure that this article has not acquired that notoriety and favor to which it is entitled. Administered internally as a tonic, it can be relied upon as particularly suited to a numerous class of patients suffering not only from phagedæna, or sloughing ulcers, but from every other variety of venereal ulceration, especially if the constitutional integrity be much impaired. In saying thus much, I have to observe that I have no experience with it in indurated chancre, or strictly inflammatory chancre.* The iron may be

* Mr. Behrend, of Liverpool, extols the use of this remedy in every case of primary syphilis. He was first induced to try it, in a case of very large and obstinate chancrous sore, in 1854. It had existed three months, and had been treated with various local applications without benefit. The patient had otherwise been under good medical care, but had wasted away from pain, loss of appetite, and loss of sleep. The sore was situated partly on the penis and partly on the scrotum. The patient commenced the use of the iron, and in one month was cured Mr. Behrend, holding the opinion that the virus of a phagedænic chancre is identical with that of every other form (the phagedæna being, in his opinion, attributable to special circumstances, and, as it were, a modification superadded to the original disease), determined to treat every case

The chlorate of potash, as a lotion, may be employed as an excellent detergent and antiseptic in chronic fœtid, suppurating ulcers, wherever situated. It proves very serviceable, also, in ulcerated surfaces exhibiting a tendency to sloughing. The formula prescribed at the Royal Free Hospital of London is composed of half an ounce of the chlorate of potash to a pint of water, with forty drops of strong hydrochloric acid. It is stimulating in its action also, and converts a foul ulcer into a healthy, granulating sore. The sore should be kept constantly wet with the solution by means of surgeon's lint saturated with it, and covered with thin sheet gutta-percha. As soon as the recuperative process is well established, the strength of the solution should be reduced.

Carbonate of Ammonia. — This is a remedy which is capable of fulfilling an important indication in the treatment of phagedænic chancre; and, before taking leave of this subject, I cannot forbear commending it to the attention of the practitioner. In its mode of operation on the dilapidated economy, in the circumstances now supposed, it differs materially from the other articles of the class to which it belongs. The immediate impression upon the stomach, and the genial thrill which it sends throughout the system, are always grateful to the patient; and the stimulus which it imparts to the vascular and dermoid tissues approaches nearer to that of normal action than can be exerted by any other remedial agent. It may, therefore, be given in almost any emergency, even when other stimulants and incitants would be inadmissible on account of any inflammatory diathesis or action that may exist. Its use is compatible with that of opium, or of the favorite ferruginous preparation of Ricord. It is especially suited to that class of patients whose constitutions have been injured by long indulgence in the use of intoxicating drinks, late hours, and all manner of debaucheries, and who may be suffering from the additional weight of the particular affection under consideration. In these circumstances, I have been accustomed to prescribe the ammonia for several years, as in the annexed formula: —

℞. Ammoniæ Carbonatis, ... ʒj.
Pulveris Acaciæ, ...
" Sacchari, āā, ... ʒij.
Aquæ Fontanæ, ... ℥iv.
Cinnamomi Olei, ... gtt. j. M.

Dose. — A table-spoonful every three hours in half a gill of cold water.

Although I have commented favorably upon several articles in connection with the treatment of phagedænic chancre, it is hardly to be supposed that there will ever be occasion to marshal all these forces into the field of action at the same time. They would thus produce confusion, not benefit. In reference to the ammonia, I would add that, for female subjects especially, it will be found an excellent substitute for alcoholic stimulants.

Thus far I have been nearly silent in regard to the employment of mercury in this destructive form of ulceration. If any medical practitioner is so partial to it as to recommend it in these circumstances, he will probably not only find it valueless, but decidedly hurtful. Let us suppose the young surgeon at the bedside of a miserable human being, male or female, whose constitution is well-nigh in ruins from scanty food, continual dram-drinking, the pestiferous fog of theatres and brothels, irregular hours, and various other predisposing causes connected with a dissolute life, and who is now the victim of a foul, angry-looking, eroding ulcer — the mere dregs of syphilis — upon some portion of the genitals. In such cases the patient always has a quick, feeble pulse, indicative of great prostration and waning of the bodily powers. Even if the morbid action have existed but a short time, it is surprising how rapidly the patient fails. Let the surgeon now inquire what specific good can accrue from the presence of any mercurial preparation in such a shattered frame. If he should administer it, it will be found not only barren of all good results, but absolutely baneful both as regards the local disease and the general system. Even in small quantities, and where it does not induce tumefaction or redness of the gums, it may play a mischievous part by increasing the tendency to slough, and its injurious effects by no means admit of easy reparation. I am confident I have seen examples illustrative of these remarks. I will cite one instance.

CASE. *May 18th.* — I was requested to give advice, from time to time, in the management of a phagedænic chancre, of which a young practitioner of the city had charge. It happened to be the first effort of his practical skill in the syphilitic department. The patient was a wandering Englishman, thirty years of age, unmarried, of nervous temperament, a hard drinker, a great smoker, a frequenter of brothels, and occupying as his lodging-place, while sick, a small, filthy apartment in a house devoted to licentiousness. At the time of my first visit he was lying on a bed of rags, and was covered and surrounded by all the paraphernalia of filth and moral degradation. He had a prostitute for his nurse.

It appeared that, a few days after exposure, a chancre came upon the glans, near the frænum. The patient consulted this young physician, who attempted the destruction of the sore by the abortive treatment. Nitrate of silver was applied for several days in succession, the patient being abroad meantime in the streets, regardless of any advice to the contrary. Erysipelatous inflammation ensued, and progressed with its wonted activity in such cases, until it resulted in phagedæna. It is not easy to convey a true idea of the unique appearance of things on this occasion. The glans was swollen; a paraphymosis tightly girded the parts, and the prepuce and integument farther back were much tumefied and œdematous. The serous effusion had infiltrated the meshes of the interstitial cellular membrane in a somewhat interrupted manner, so as to be confined in small elongated sacs, which took a spiral direction part of the way around the swollen organ; and thus there were three or four bands producing a twisting and partial strangulation. The virile member, as a whole, bore no small resemblance to a short screw auger. The patient was lying on his back. The primary chancre was close to the frænum; but it was now nearly obliterated, being merged in the phagedænic mass. The pulse was quick, small, and hard; the tongue white; the skin dry and hard; there was thirst; severe pain in the glans and along the whole penis; constant nervousness, and involuntary muscular agitation, like that witnessed in the early stage of delirium tremens. For the two previous nights he got but little sleep. He had taken submuriate of mercury pills for eight or nine days, but no specific effect had been produced in the mouth.

It was agreed that the pills should now be laid aside, and that opium should be given in two-grain doses, every three hours, until the patient should obtain sleep; and that he be kept under the influence of this drug so long as any constitutional irritability remained. The prepuce was scarified at several points, and the parts dressed with warm solution of the extract of opium. The paraphymosis was at once relieved by the disgorgement from the prepuce, and the swelling and pain in the strangulated glans subsided in a few hours. The man was put upon the free use of carbonate of ammonia julep, according to the formula just given, together with wine and quinine. The chancre was touched with the concentrated nitric acid several times; and, for an ordinary dressing, the opiate solution was prescribed for a short time; then the chloride of soda; and, at a later period, the dilute nitric acid. The pulse and tongue got nearly right in about one week from the day I first saw the case. There was loss of a considerable portion from the right side of the glans and the corresponding part of the corpus cavernosum. The frænum was destroyed, and also a portion of the prepuce. At one time the organ had an unpromising aspect. From the walls of the chasm occasioned by the sloughing, granulations sprung up in healthy style; the mutilated glans was soon brought in apposition with the cavernous body, to which it united very cleverly. The cure ended with a somewhat odd deformity, although the patient was very well satisfied. He left his quarters suddenly one morning for parts unknown, allowing his young surgical attendant to realize his fee in the practical knowledge he had given him an opportunity to acquire.

Occasionally the surgeon is consulted by a man who has been exposed, and whose condition is something like this: the penis is swollen and painful, and exquisitely tender on pressure at some particular spot along the corona glandis. The prepuce is also inflamed, and of a deep livid color. It is in a state of phymosis over the glans. There is a thin, bloody, and highly offensive discharge from the preputial orifice, which is much contracted. As no other lesion of these parts is at all likely to yield such a peculiar secre[illegible]y be considered, in connection with the co[illegible]na, as furnishing almost unequivoc[illegible] concealed, phagedænic,

sloughing sore on the corona or on the mucous surface of the prepuce. In these circumstances, the surgeon should, without delay, slit up the prepuce along the dorsum of the glans, so as to bring the chancre into view, and then apply the strong ferruginous solution or the undiluted nitric acid.

Phagedænic chancres on the penis not unfrequently destroy the parts to such an extent that amputation becomes necessary as a final measure. It was said by Dr. Physick, of Philadelphia, that he had amputated a hatful of such specimens.

In addition to the chancres already mentioned, there are other varieties of primary syphilitic sores, which have been designated by the names of phagedænic gangrenous chancre, the pultaceous diphtheritic chancre, the serpiginous, or creeping, chancre, etc. In all these varieties the abnormal process is of similar character, and requires to be dealt with in a manner analogous to that which is found most beneficial in the form of chancre which has just been considered.

In all cases of phagedæna the patient will require a generous diet. Eggs, milk, broths, and, as the digestive apparatus acquires ability, mutton-chop and beef-steak will constitute an appropriate bill of fare.

Chancres in women are wont to assume a more unfavorable disposition than in men. These lesions may exist on the nymphæ, or on the inner surface of the labia, for a long period, and yet the patient be unsuspicious of their nature. In fact, they give little or no pain or irritation until they acquire a large size, and the woman is hardly conscious of their presence. The first symptom that attracts her attention is a sensation of smarting and prickling, occasioned by the act of micturition. If, however, the chancres are allowed to have their own way, unchecked, they sometimes penetrate into the cellular tissue, and degenerate into sloughing ulcers, and total destruction of the parts is the result. Females in whom this description of ulcer is found are usually of a most abandoned character, of dissolute habits, and broken-down constitution. The sore generally commences as an abrasion, or perhaps as an angry-looking pimple, on the labia, and is soon encircled by an unhealthy, lurid areola, and from inattention, as well as in consequence of a vitiated condition of the system, it does not take on a normal granulating action, but shows a tendency to spread in every

direction, and yields a thin, sanious, fœtid discharge, mixed with *débris*. At a later period, dark-colored sloughs begin to form in quick succession, and become more and more extensive, until the vagina and the perineal and anal regions are involved. Sometimes the entire lower opening of the pelvis is deprived of the soft parts in consequence of the sloughing process. Excessive local pain at length becomes a prominent and abiding symptom; there is high irritation or inflammatory fever, which ultimately assumes a typhoid character, with more or less delirium; the pulse is rapid, and indicative of great constitutional debility; the appetite fails; all the vital functions are deranged; exhausting hemorrhages take place from different points of the immense ulcerated surface, and the frail victim dies from the combined effects of bad liquor, debauchery, and syphilis. Fortunately this form of venereal affection is rarely met with. Now and then a female, who has long suffered from it, is taken from one of the terrible dens of our large cities, and placed in some charitable institution. But, in consequence of delay, her chances of cure are exceedingly small. If the case receive proper medical attention before the sloughing process has reached an advanced stage, it is not usually difficult to cure the patient. The concentrated nitric acid, a saturated solution of the watery extract of opium, a weak solution of the chloride of soda, Peruvian balsam, and warm fomentations, comprise the most reliable and efficient local therapeutic means; and the constitutional treatment should consist of tonics, large doses of opium, occasional laxatives, liberal diet, wine, porter, and a wholesome atmosphere. In the Magdalen wards of some of the London hospitals this disease has long been known as the "*Swan Alley sore*." Swan Alley is the name given to a place which no longer exists, having been swept away to make room for better structures and better purposes. The prostitutes, who formerly tenanted these lower regions, lived in an immense underground vault for weeks and months together, without seeing the light of day, or inhaling a breath of salubrious air. They had unlimited intercourse with foreign sailors, many of whom were Lascars and colored men. They were of slender frame, in most instances, and had fair, light complexions, light hair, and were generally from fifteen to twenty-five years of age. They were decoyed from the country by Jews, who kept

these subterranean abodes, and were systematically on the look-out in the neighboring thoroughfares. They were scantily fed, and had an abundance of gin. These primary, phagedænic, sloughing ulcers do not furnish contagious matter, nor do the females who recover from them ever have secondary constitutional symptoms. So said the late Mr. Travers, who furnished a graphic description of them, a few years since, in the London Medico-chirurgical Review.

CHAPTER XXIII.

BUBO.

HUNTER regarded the syphilitic bubo as a primary accident. There is no instance recorded in which this lesion has ever had its origin in a secondary venereal sore; nor is it, on the contrary, with a few rare exceptions, ever developed as a specific affection, unless a chancre has preëxisted. A few well-authenticated cases of *bubon d'emblée*, or primitive bubo, have been met with.* Ricord mentions eight; Mr. Erichsen has seen one; Mr. Lane a few, and so on. Mr. Parker has never seen one primitive bubo, which has been tested by inoculation, and thus proved to be of a syphilitic character; but he is disposed to admit that such cases have been seen and verified by surgeons of experience, and who are worthy of credit.

I think it is not far from the truth to consider a virulent bubo as holding an intermediate position between primary and secondary syphilis. It has been not inaptly called the half-way house between the two stages of the disease.

The student will seek in vain for entire uniformity of opinion among the best authorities in regard to the frequency or certainty with which bubo attends or supervenes upon a chancre. Some maintain that chancre always begets a bubo; others assure us that enlargement of the ganglia of the inguinal region does not, in all instances, take place; and that the secondary symptoms may be developed, notwithstanding the fact that these glands remain intact. Buboes usually occur on the same side that is the seat of chancre. If the latter be situated on the frænum, a bubo may be developed in either groin, or in both right and left. Buboes that arise in consequence of indu-

* M. Ricord, it is said, now denies the existence of the primitive virulent bubo,—"*bubon d'emblée*," produced by the absorption of a special virus, and where there has been no suspicious antecedent,—chancre, excoriation, or sore.

rated chancre, rarely suppurate, being subject to the same law of morbid action that governs the chancre. Such buboes are regarded by some writers as nothing more nor less than chancres seated in these glandular bodies. They are also denominated indurated, indolent, constitutional buboes, and, as they never suppurate specifically, some surgeons consider that no local treatment is ever serviceable in their removal.

The period at which a bubo appears, after the occurrence of chancre, is not limited to any definite time, although it generally begins to show itself about the second week after the formation of the parent sore. In the male subject, the bubo is most frequent when the antecedent chancre is situated on some portion of the prepuce, or on the frænum; and in the female, when the chancre forms at the *meatus urethræ*, or near the anterior verge of the anus. If the patient has a good constitution, and is seen sufficiently early for the successful application of the abortive treatment, a bubo will not supervene. Surgeons formerly had an idea that if the chancre was destroyed at an early period, the virus might be driven into the system, and that a bubo would consequently be more likely to form.

The true syphilitic bubo is very indolent in its progress, remaining nearly stationary for several weeks, causing but little pain or other inconvenience; but the mere fact of its existence is of no trifling significance. It shows that the system is impregnated with the specific virus, which has found its way into the channels of intercommunication, and, through the medium of the blood and other fluids, has poisoned the whole animal economy. The bubo of other varieties of chancre is more acute, more painful, and generally involves the glands of only one side. Buboes are sometimes produced, not by absorption, but by irritation, in scrofulous and other unhealthy subjects. These cases are not difficult to be distinguished. Simple inflammation is set up, chiefly in the deep-seated glands, which do not become the recipients of the venereal element through the medium of the lymphatic vessels.

Sometimes there is a deviation in the locality of inguinal bubo. It may be seated farther down the thigh, or farther towards the pubes, or close in front of Poupart's ligament. I once met with the latter deviation in a young man. In this

case the swelling attained a large size, was round, and pushed forward the cutaneous and cellular membranes, as if a small flat onion were underneath. The unusual position of the swelling is due, of course, to the abnormal locality of the glands, and it is well to bear in mind the possibility of this anatomical peculiarity, otherwise some embarrassment or error might occur in our diagnosis.

The virulent matter of the true syphilitic bubo retains its contagious property so long as it remains in the ganglion; that is, it is inoculable.

In regard to the frequency of inflammation and suppuration, the general rule is this: if the bubo be the result of a non-indurated chancre, its tendency is to advance to suppuration; whereas, the contrary is the fact if the original chancre be of the indurated variety.

It is a matter of great consequence that we should be correct in our diagnosis of the kind of bubo we meet with, because important therapeutic indications are founded on the opinion we form of the character of the swelling. Let me illustrate by presenting the following

Case. — A short time since, a young man, whom I had formerly attended for constitutional syphilis, called upon me one morning, in great distress on account of a bubo in the right groin. He first noticed a slight tenderness and swelling four weeks before he made this morning call. He had already consulted a young medical friend of his in reference to his case, which was pronounced to be syphilitic; and among other things that were done by the advice of this young medical gentleman, a blister, about four inches square, had been applied several times to the groin, in the hope of dispersing the swelling. The patient, being connected with an extensive mercantile house, and having, on a former occasion, been detained from business for several months, had great reluctance to incur a second suspension from duty, especially for such a reason, and consequently continued, as usual, at his employment, but suffering constant pain, which increased from day to day with the growth of the bubo, this being now exceedingly hard and voluminous. It occupied nearly the whole of the inguinal fossa, and all the lymphatic glands situated in this region seemed to be involved

in the swelling. The mass was perfectly immovable, and in all its features, taken in connection with the history of the patient, it appeared to exhibit the character of a scrofulous bubo, as generally understood and described. The patient had a coated tongue, quick pulse, loss of appetite, and loss of strength and flesh; he relied on opium for sleep by night; the bowels were costive, and there was intense mental distress, amounting almost to insanity. He was truly an object for pity. He pretended to consider the bubo as the relic of his former venereal trouble. I assured him that this was not the fact, and inquired if he had not been recently exposed to infection anew. He gave a negative reply, in a prompt manner, as if to repel the inquiry with indignation; but the style of his denial betrayed guilt. I examined the penis, and it did not take long to discover the cause of the bubo, as I had occasionally met with other similar instances. A vesicular eruption, with a delicate, pinkish color and slight œdema, occupied the entire border of the prepuce. Some of the vesicles had discharged their contents several days previously, and a thin, flat scale had formed upon their summit; other vesicles had been broken more recently, and were without any covering. They appeared like minute open cups, barely visible to the naked eye, and yielded a slight limpid secretion. There were other vesicles, still younger, that had not ruptured the epiderma.

After I had carefully examined the organ, the patient asked what I thought of it. I told him that I strongly suspected that he had lately had intercourse with an impure female. I would, however, hear any explanation he had to offer relative to the diseased condition of the prepuce, which I regarded, in part, as the cause of the bubo. He acknowledged that he had been on intimate terms with a woman whose husband was in California.

The eruption in this case was *herpes præputialis*. It had existed about two months; some of the time being quite troublesome, at other times nearly well, according to the habits of the patient. Instances of this vesicular affection, produced by non-venereal vaginal discharges, are occasionally met with. The herpetic eruption, when developed in highly sensitive subjects, will sometimes give rise to tenderness and pain in the inguinal glands. In the present instance, the patient had been told that he had a chancre on the prepuce, although this was

not the fact; and he was at once, and very naturally, apprehensive of a syphilitic bubo. He was on the alert for abnormal sensations and developments in the groin. His fingers were almost every moment thrust into his trowsers and pressing upon the glands, and thus their tenderness was increased. At length his fears, confirmed by the unfortunate diagnosis of his young medical friend in regard to the preputial affection, prevailed in the case.

There are instances in which it is difficult to distinguish a true chancre in its early vesicular stage, if it appear as a vesicle, as it sometimes does, from herpes of the prepuce. In such cases, if we wait until ulceration commences, the character of the disease will become sufficiently distinct. The young physician, who preceded me in charge of the present case, decided at first that the herpetic eruption of the prepuce was a chancre. This was by no means a singular or uncommon mistake, and yet it was a very serious one, and led to an equally great one in the immediate treatment, both local and constitutional. The slight trouble in the inguinal region was also misinterpreted. It was regarded as the result of absorption of the venereal virus. I am happy to say here that the young physician, to whom I have referred, had an opportunity to study out the case, and ultimately arrived, *sua sponte*, at the just conclusion that there was no syphilitic element in it. In further explanation of the case, which is an interesting one to dwell upon, I have to remark, that the repeated application of the blister, and the active business habits which were maintained with such reckless pertinacity, under so many disadvantages, soon aggravated the inguinal difficulties of this young man, who possessed a scrofulous diathesis. For several weeks he would listen to no advice as to the importance of keeping quiet, and the consequence was that he continued to lose ground, until he broke completely down, charging his failure to lack of medical skill. The bubo at length suppurated. The constitutional symptoms were severe, and the patient continued to suffer more and more, until his condition became alarming. When the bubo on the right side had nearly healed, a similar one appeared in the opposite groin, and pursued a like tardy, and chronic course. For nearly ten months a general cachexy seemed to pervade the economy, and extreme emaciation and

debility ensued; but, fortunately for the poor fellow, he ultimately recovered sufficiently to return to his home, which was far distant from New England. I have stated that this patient had, on a former occasion, suffered severely from constitutional syphilis, and he had not wholly recovered from its ravages. In designating the particular variety of buboes which he had, however, I know not a more appropriate epithet to employ than the one I have chosen; for the inguinal swellings, which the patient had, and their entire history, correspond in character with the scrofulous bubo so graphically depicted by Hunter. The patient had no sore throat, no disease of the skin, bones, or periosteum, during the period embraced in the foregoing account. Nevertheless, if we go back a step farther, and inquire whence this scrofulous diathesis was derived, we need not hesitate to admit that the previous constitutional syphilis contributed a large share to its production, using the term scrofula in the sense adopted by Hunter. Perhaps, in more modern phraseology, sympathetic bubo would sound better.

Treatment of Buboes. — To the patient it is a matter of great importance that the bubo should be dissipated as soon as possible, without being allowed to suppurate. But what degree of efficacy will be exerted by any remedies we can employ, with a view to control the tendency of the diseased action, is uncertain. Vidal says that a bubo which should suppurate will suppurate, no matter what we do; and the bubo that should disappear by resolution will thus disappear, in spite of the ordinary suppuratives, except they be too violently used; and yet Vidal would not dispense with treatment.

In private practice, one of the greatest obstacles to success in our endeavors to annihilate a bubo, is the inability or reluctance of the patient to observe that repose which is so essential. He should be confined to his bed or couch. Here is his surest place of safety. He should take a warm bath morning and evening, and remain immersed during thirty or forty minutes, unless he experience a sensation of faintness. The effects of this simple bath, in allaying any constitutional irritability or feverishness, are highly important, and their agency in reducing the glandular engorgement cannot be doubted. They should be followed up faithfully.

Of the multiplicity of local measures for the treatment of adenitis, counter-irritation has acquired great popularity among practitioners. It has for many years been employed over the swelling in every stage of its progress, as a means of removing its contents. The plan proposed by M. Malapert, and which has been extensively followed in the hospitals of Paris, consisted in the application of a blister over the bubo, with a subsequent dressing to the vesicated surface, of a solution, on lint, of the bichloride of mercury, in the proportion of twenty grains to the ounce of water. This was kept in contact with the part for two hours, and afterwards poultices were substituted. When the bubo was very large the solution was repeated. The success attending this harsh procedure in removing the swelling, and effecting absorption of the purulent matter, even when suppuration has advanced to a considerable extent, is acknowledged by those who have been accustomed to employ it in all stages of the complaint. The plan, however, is now laid aside by many who formerly practised it. It is most beneficial when pursued in the formative stage of bubo, and when the inflammatory action is moderate.

A strong solution of nitrate of silver has afforded good results. The first systematic trial of this agent was made at Guy's Hospital. Mr. Lee, in his edition of Sir Astley Cooper's Surgery, states that he never saw a bubo suppurate, when the dry nitrate of silver had been applied freely over its surface every second or third day. Mr. Henry Thompson confirms the statement in regard to the efficacy of the nitrate, which he has prescribed in cases of adenitis where fluctuation has been so complete and unmistakable as almost to forbid any attempt to discuss it on the ground of its apparent hopelessness.*

A blister often proves advantageous as a counter-irritant. Even where suppuration seems inevitable, the application of a vesicatory will sometimes cause the swelling to subside under its operation, and perfect resolution will take place; and the case need not be wholly despaired of until the blistering has been tried and found unavailing. If the integuments covering the tumefaction have become attenuated and of a deep purplish

* Vide London Lancet, 1855, p. 340.

hue, thus showing that they are more or less disorganized, and are passing into a gangrenous state, then the blister will be of no service. Such a morbid condition will require that the contents of the abscess be liberated at once, and its walls saved, if possible, from further destruction by the employment of concentrated nitric acid or a saturated solution of the potassio-tartrate of iron.

There is one other method of treating buboes locally, and which I have employed more frequently than any other, in cases where I have attempted their early destruction. The moment there is a manifest enlargement of the inguinal glands as a consequence of chancre, I direct a blister about two inches square to be applied over the tumor. As soon as vesication takes place, the cuticle is removed and the denuded surface dressed with the following ointment: —

℞ Unguenti Hydrargyri, ... ℥j
Pulveris Ammoniæ Muriatis, ... ʒss. M.

The ointment produces some smarting and pain, which, however, the patient can tolerate very well, if he keeps quietly in his room. In about thirty-six hours a pretty deep sore will be formed. This may be dressed with rose ointment for a couple of days, the mercurial ointment being laid aside. When it has partially healed, the first named ointment is to be re-applied; and this alternation in the dressings should be observed until the total obliteration of the swelling has been accomplished, or until something transpires in the progress of the case to contraindicate such a course. This plan of local treatment I consider as good as any, and I have tried all the recognized methods. I have pursued this with success in many instances, but in still more have derived from it no benefit whatever; and this, I fancy, is about the truth in regard to nearly all topical appliances.

Collodion has been applied to buboes when there is not much local inflammation. It is recommended to be brushed over them in successive layers, until quite forcible compression is produced. Other methods of exciting pressure are described and practised. In Acton's valuable work are two wood cuts, — one showing a truss for compressing buboes, the other an inguinal bandage designed for the same purpose. The idea

of compression, we are told, had its origin in the accredited circumstance or fact that bubo seldom forms on the side on which a truss is worn. If it be true that a truss will prevent a swelling of the inguinal glands, it does not follow that this apparatus, or that a bandage in the style advised by Acton, will cure a bubo that has already formed. The great objection, however, to the employment of pressure arises from the fact that the proceeding is a most hazardous one. Mr. Johnson, in his admirable treatise on gonorrhœa and its consequences, assures us that he has met with many cases in which he has observed bad effects from it. He relates two in detail, and which are characteristic of the dangers attending it. One of the patients was a young man, the other a young woman. Both died, after protracted and dreadful suffering caused by the application of bandages and compresses. In both cases, the process of inflammation and suppuration, instead of progressing and terminating in the usual manner in the inguinal glands, was intercepted, and pursued divers other routes, establishing seats of suppuration and sinuses, involving the iliac fossa, bladder, intestines, etc.

The indolent or chronic bubo may generally be successfully treated with small blisters, and the internal administration of the iodide of potassium to the amount of half a drachm in the day. If absorption does not take place, after a fair trial of these measures, the ammoniated mercurial ointment should be employed in the way just mentioned. Sometimes this variety of glandular engorgement will remain stationary for a long period, and then, provoked by some new source of irritation, suddenly inflame again, and proceed to suppuration, in spite of all measures to the contrary.

If there be much febrile action, with pain and tenderness in the bubo, whether virulent or otherwise, and if the patient be of a plethoric habit, some surgeons advise that blood be taken from the arm with the lancet, or from the immediate vicinity of the bubo by leeches. In nearly all cases, however, it is an easy matter to carry the process of reduction to the requisite point without loss of blood. Let the patient be subjected to a gruel diet and the like for two or three days, and at the same time take occasional doses of a weak solution of tartar emetic, and his system will be brought to as low a mark as it is safe or

necessary to conduct it. The symptoms of pain, tenderness, etc., which we are now considering, are not occasioned by the presence of too much blood in the system, but because, so far as the blood has any agency, its equilibrium is disturbed, although only in the slightest possible degree. There is, to be sure, a *remora* in the capillaries of the enlarged gland. If a few ounces be drawn from the general circulating current, the proportional quantity abstracted from the diseased gland by this process would be but a drop or two at most, and the loss would again be supplied to the parts at once, and thus the engorgement would be kept up, unless prevented by other means.

If a bubo should become softened, and give evidence that suppuration has occurred, all attempts to bring about a resolution will, as already remarked, be very liable to fail. I have many times endeavored to disperse the tumor after fluctuation has become evident; but in a majority of cases the suppurative process has continued to progress slowly, and I have been defeated in the effort to bring about absorption, and have regretted that an early opening had not been made.

For the purpose of giving free exit to the matter, the lancet affords the best method. It is more simple and more controllable than the Vienna paste or the potassa fusa, and the surgeon can instantly release the contents of the abscess by an incision, which will not give a tithe of the pain caused by these escharotics, and will not leave so distinguishable a mark for future observation as would be likely to be made by either of these substances. The walls of the abscess should be thoroughly cleansed with warm water, or with a very weak solution of chloride of soda; that is, one drachm to two ounces of warm water. For subsequent dressing, the saturated solution of opium should be ordered for the first day or two after the opening of the bubo. So long as the suppurating surface presents a healthy character, and shows a disposition to heal, although at a slow rate, the surgeon may look forward to a happy termination of existing troubles, and the case need not be regarded with particular solicitude with reference to this or that local specific.

The sore should be kept in a cleanly condition. For this purpose, as well as with a view to promote its advancemer

towards a cure, the chlorinated water will be advisable during the day, and at night the nitric oxide of mercury ointment somewhat diluted. For a simple bubo, ordinary dressings only will be required. But when the bubo assumes an unusual character, — as, for instance, when its edges show a disposition to ulcerate, — when it extends from day to day, or when it remains stationary, Ricord and Acton are in favor of the topical use of powdered cantharides. They recommend that the abscess should be filled with the powder, which should remain in contact with the diseased surface for an hour or two. If induration exist at the edges of the bubo, they advise the mercurial ointment to this portion, while its interior should be washed with some astringent lotion. I have never brought these suggestions to the test. To me they seem to involve a procedure more complicated than will be found convenient in general practice.

There are many applications which will work a favorable transformation in the aspect of an unhealthy, indolent, and intractable ulcerating bubo. My predilection is for the ferruginous solution, which occupies so prominent a position in these pages. The strength should vary according to the amount of stimulus which the ulcer may need from day to day. At first a drachm of the salt to eight ounces of water will generally form a suitable preparation for continuous use. As soon as a clean, granular surface appears, which usually takes place very shortly, the lotion must be diluted so as to contain a drachm of the iron to twelve ounces of the water.

If the iron should not act favorably as a local application, the acid solution of chlorate of potash, of the strength already mentioned, may be advantageously substituted.

Sloughing Bubo. — In this form of bubo the constitutional treatment should consist of generous diet, the liberal use of wine, chalybeates, ammonia-julep, and at night opiates in sufficient quantity to procure sleep, and thus remove the irritability of the system, which is apt to be a most annoying symptom. Mr. Key (*Guy's Hospital Reports*) recommends the iodide of potassium; so, also, does Mr. Acton, particularly in serpiginous chancres and ulcerations. But the latter surgeon holds the potassio-tartrate of iron in higher estimation than any other

remedy, as may be inferred from the following closing sentence from his section on the treatment of phagedænic chancre: "I must again repeat that too great stress cannot be laid on the admirable results which follow the use of iron in phagedæna." In brief, it may be remarked that the same treatment which has been proposed for phagedænic or sloughing chancre is in all respects, both locally and constitutionally, appropriate for the cure of the phagedænic or sloughing bubo.

To the injudicious administration of mercury, and the meagre, dietetic fare to which patients were subjected, is to be attributed the frequency of phagedænic or sloughing bubo in former times. Happily it is a variety of ulceration extremely rare at the present day.

Sinuses. — Occasionally it happens, while we are attempting to heal a bubo, that a sinus forms, having its opening, or mouth, near the most dependent border of the bubo. A portion of the purulent deposit works its way downward very gradually, and will continue to do this for an indefinite time, unless checked by surgical means; the best of which, in ordinary cases, consists in the use of an injection of tincture of iodine into the orifice of the sinus. The injection may be squeezed out immediately, and repeated in four or five days, if necessary. One injection will frequently close up the whole track of the sinus completely.

If, after a few trials with the iodine, the sinus does not heal, the acid nitrate of mercury, in the proportion of one drachm to four ounces of distilled water, may be used in its stead, and a few drops be injected every day, or every other day. Should the latter injection fail to accomplish the desired object, the sinus may be laid open, provided it lies immediately under the skin, which can be incised without endangering any bloodvessel or other tissue.

CHAPTER XXIV.

SECONDARY SYPHILIS.

However scientific and successful the remedial course may have been for the cure of indurated chancre, which is the common origin of all secondary and tertiary symptoms of a venereal character, it often happens that the virus of this chancre steals the march upon the medical attendant, and at an early moment finds its way, either by lymphatic or venous absorption, into the blood. Here it dwells in a state of incubation for an indefinite period before its presence is decidedly pronounced. It may remain a long time, and not make known its existence by any palpable manifestations, while the individual retains his accustomed health; but if he becomes debilitated, the syphilitic element will very likely declare itself in some well-marked local affection. The period of its latency is wholly uncertain and indefinite. It has been known to appear in a few weeks in what is called the syphilitic inflammation, or fever, the most prominent features of which are seen in the throat, in inflammation and hypertrophy of the tonsils and the adjacent mucous membrane, neuralgic pains in the head, or pains in the larger joints by night, or more frequently perhaps in blotches and roseolous congestion of the cutaneous tissue of the face, the neck, abdomen, arms, etc. On the contrary, the poison may sleep, as it were, in the system for months and years, until some exciting agent shall intervene, and bring it from its hiding-place to the light of day.

At whatever period the secondary constitutional development occurs, some accessory agent seems to be required to bring it forward in a tangible, appreciable form. The most frequent accidental cause is exposure to an inclement atmosphere. If the patient should work in the open air, or take a ride in a cold, stormy day, or remain in a damp cellar, or encounter any trying vicissitudes of weather for a short time only, the hidden

enemy, which he may have carried about him in embryo for years, will be provoked to make known its presence when and where it was little expected.

The average period between the existence of primary chancre and the accession of any secondary cutaneous affection, is variously estimated. Dr. Egan reckons it at five or six weeks. From the cases that have come under my own observation, I should say that generally a much longer interval than this passed between the chancre and the outbreak of any consecutive, cutaneous accident. M. Legendre, formerly a pupil at the St. Louis Hospital, and author of a thesis on syphilitic eruptions, says: "I have obtained, as a general medium, from the time of the appearance of the primary to that of the secondary accidents (*syphilida*) five years, precisely the same result as that mentioned by M. Martins in his Memoir."

There are so many differences in the constitutions of patients, such diversities of treatment for the cure of the original accident, so many varying circumstances in which the individuals implicated are placed, such dissimilarities in their personal habits and occupations, such gradations, fluctuations, and extremes of climate, and such changes in the seasons of the same latitude or region, that it is impossible to determine what is the natural term of latency which the modified syphilitic virus would observe. The primitive, unadulterated, venereal poison, that which generates the chancre, obeys a nearly uniform law of incubation; but the diluted element, that which has been incorporated into the blood, appears to be subject to many contingencies, that have a direct control over it in producing its visible effects upon the constitution.

Sex has something to do with the interval between the primary lesion and the consecutive manifestations. The latter developments appear at an earlier day in women than in men.

Victor de Meric, Esq., reports the cases of nine individuals, males, who presented eruptions, and had not undergone any treatment. In three cases of papules, the eruption in one appeared in *seven weeks* after the primary symptom; in the other the interval had been *six weeks;* and in the last, *eight weeks.* Two cases of roseola or efflorescence appeared, one *twenty-four days* after the occurrence of chancre, and the other *one month.* Psoriasis appeared in two subjects at the distance of *four*

eight weeks. Regardless of the kind of eruption, the author here cited reckons a mean of six weeks' time, which separates the primary sore from the cutaneous affection, where no treatment whatever has been resorted to.* The longest interval of time between the primary disease and the secondary cutaneous affection has been, in my own practice, twenty years. The case was an interesting one, and I will here transcribe it chiefly from my note-book.

November 26, 1853. — Dr. H. I. Bowditch, of this city, called with a patient of his, and desired my opinion respecting the nature of the disease. Upon examination, the limbs, trunk of the body, neck and face were found covered with tubercles, — most numerous and much the largest on the forehead. Here, they were in juxtaposition, and were about two lines broad at the base, and were of a dirty reddish brown color. The nose, back of the neck, and shoulders afforded the next largest crop. On the body and extremities they were sparsely disseminated, and were smaller than on the other districts. Upon the legs and arms, the eruption approached the ordinary lichenoid pimple, and was strictly papular. The man complained of no suffering or inconvenience of any kind as arising from the eruption, except a slight itching or tingling sensation when he rubbed his forehead, or pressed his back against a chair while sitting. Sometimes the sensation thus awakened was like the prick of a pin or the sting of a mosquito; so said the patient. Upon the summit of the papules on the forehead a thin scale formed and was cast off every five or six days, as in ordinary non-specific *psoriasis guttata.* Upon looking into the throat, the mucous lining of the posterior part, and downward as far as the eye could reach along the walls of the pharynx, was found hypertrophied from chronic inflammation. The mucous membrane of the whole buccal cavity was œdematous, and presented a mixture of white and red points, the papillæ being swollen, and the epithelium displaced from a portion of them, and rolled up into white granules. A few days before I saw the case, the right tonsil had been removed by the late Dr. Samuel Parkman. Previous to the operation, there

* Lancet, November, 1858.

had been much difficulty in deglutition and respiration. The disease in the throat had existed about one year; the cutaneous eruption came four months later.

The patient was a tall, gaunt, slenderly-built man, fifty years of age, and was extremely pallid. He complained of debility; had a poor appetite; a feeble, quick pulse; pains in the large joints, and in the head; his nights were restless; he stated that his health had been declining for more than a year; he had been accustomed to an active life, but was then unable to attend to business. He also stated that twenty years ago he contracted a chancre, was treated without mercury, recovered in a few weeks, and was never subsequently exposed to infection. Dr. Bowditch had told this man that his disease was constitutional syphilis. He ridiculed the diagnosis, as he had been in good health for so many years before the present symptoms were developed. I confirmed Dr. B.'s opinion. The patient gave up his disbelief, and was thrown into no little mental agony. He had not a particle of delicacy in regard to his condition or the cause of it, and consequently had not the motive of shame or mortification to induce him to falsify as to the time when he received the virus. At the request of Dr. B., I took charge of him, but he shortly went among quacks, and died of syphilitic consumption. To the foregoing instance, I desire to append one other, which is not without instruction, although the time between the primary chancre and the consecutive lesions on the skin, was only eleven years.

June, 1856. — Patient A. B., age thirty-six years; married. Remarkably stout-built, florid complexion, full face, speaks of uncommon muscular strength, weight 190 pounds, is of medium height. In 1844, he was inoculated in the natural way with chancre on the under side of the glans penis, near the frænum; was successfully treated by an experienced surgeon, and in a few weeks was well. He has led an active life nearly ever since as an engineer on the Western rivers, and has enjoyed uninterrupted health until 1852, seven years, when a moderately sore throat troubled him for a few weeks in the autumn; and on several occasions since he has had an uncomfortable bronchitis in cold, stormy weather. About a year ago a crop of tubercles, occupying a portion of integument as large as a penny, came on the right temple. Their habits were

as follows: Some of them softened and ulcerated more or less perfectly, while others gradually wasted away, retaining their tubercular character to the last. About the time they disappeared, whether ulcerated or not, a new crop, usually numbering from four to six, was sure to spring up near the borders of the cicatrices left by their predecessors. This individual was under my care, at intervals, for more than eighteen months before the morbid condition of the skin was entirely subdued. The disease was a perfectly well marked syphiloderma, and for a long time was confined to the right temple. It finally crept along just above the superciliary ridge, until it ended at the median line by a solitary tubercle, located about half an inch above the junction of the eyebrows. Strange to say, this lone specimen, which never attained the size of a split pea, maintained its ground more than six months.

The general health, in the above case, was not disturbed in the slightest degree. The patient has a daughter five years old, remarkably rugged, and in constitution and features copying after the father more than the mother.

Thirty years have been known to elapse between the cure of chancre and the approach of cutaneous disease as the first consecutive symptom; and, so far as we have any record, the shortest time that has been known to intervene between exposure and the secondary affection on the skin is three weeks. At whatever period the eruption begins to show itself, it is very common to find inflammation of the mucous membrane of the fauces coëval with it, and extending low down into the throat. The patient frequently mentions that he has bronchitis; and the peculiar sound of his voice announces at once that the organs of speech are in an unsound state. The vascular plexus, both of the mucous and cutaneous membranes, shows an increased afflux of blood, and a moderate febrile action prevails; but these conditions are rarely suspected by the individual as having any connection with his former venereal trouble. His complexion presents an unnatural, pale, dirty, or brownish-yellow, tinge; there is gradual enlargement of the cervical glands; the skin is wrinkled, dry, and harsh to the touch; he complains of loss of muscular energy, loss of appetite, loss of flesh; has pains in the cerebellum, back of the neck, and in the larger joints, especially by night; is nervous, languid,

depressed in spirits, and rarely obtains sound and refreshing sleep. All these symptoms, it is true, may originate in other causes, and, taken separately, might not suggest that they had any relation to syphilis; but taken in the aggregrate, and as they frequently present themselves in a young man, they are significant of this malady, and there is a meaning and importance to be attached to them not to be overlooked by the medical practitioner. I have sometimes been amused and astonished at the eloquent expression of the patient's demeanor, which serves as a sort of tableau, or mirror, declaring, in unmistakable language, the nature of his malady before a word has been uttered by him, and before I have commenced an examination in quest of physical signs or marks upon him. I claim no superior tact in this matter. What knowledge I have gained is the result of observation; and I share it in common with many others in the profession situated as I have been. The physician, however, must not allow his judgment, on any occasion, to be biassed by fancy sketches. He is to deal with realities; and when these are properly interpreted by him, and he communicates his views in regard to them to the patient, he will very likely find the latter filled with surprise, and perhaps with incredulity. He has had no warning or anticipation of such a state of things; has been told, perhaps, that he was thoroughly cured, and safe from all future trouble of a venereal character. This was the fact in regard to the two last cases I have related.

It is incumbent on the physician, therefore, to be clear and accurate in the matter of diagnosis, not only lest he should compromise his own reputation, but because the welfare of the other party is directly and deeply involved. A chancre or bubo is usually recognized without any great difficulty, whatever may be the variety of either, unless their real character has been greatly modified or wholly lost in consequence of some indiscreet medical interference. But far different is the case when the keenest eye and the shrewdest intellect are brought in contact with the dubious pathology of the various consecutive maladies that affect the cutaneous and mucous tissues, and other portions of the corporeal system, and which may or may not be the offspring of the syphilitic virus. Occasions and circumstances will present themselves calculated to bewilder, to astonish, and to unsettle the judgment of the physician, however rich he

may be in practical experience or logical discipline. I once saw a case of chronic eczema, which had been under the care of two highly respectable physicians residing in different towns, and had been pronounced to be, and treated by both of them as, secondary syphilis. The mistake led to very serious difficulty. The patient was a married woman of high standing in her neighborhood. The husband denied the authorship of such a disease. The wife and her immediate friends, guided and sustained by the erroneous diagnosis above mentioned, believed him guilty; and they decided that she should return to her parental home, never again to live with her husband. The day of separation was fixed; but, before the measure should be consummated, it was arranged that I should examine the patient. This I did, and had no difficulty in satisfying all the parties that there was no syphilis in the case. A change at once came over the domestic scene. Instead of lamentation and bitter wailing, the voice of reconciliation and peace was heard, and the contemplated separation did not take place. The above historiette is not the only one of the kind that I could relate. Its direct bearing, in illustrating the importance of accuracy in the matter of diagnosis, will be sufficiently obvious, and for this purpose it has been introduced.

Of all the morbid developments consequent upon primary chancre, none are more frequent or interesting, none more worthy of careful study, none more difficult to treat, than the numerous group comprehended under the nomenclature of *syphilodermata*, which I propose to consider in the ensuing chapter.

CHAPTER XXV.

SYPHILODERMATA.

The plastic hand of "nature in disease" scarcely acknowledges any limit to the variety of forms which she is able to produce from a few pathological types. Especially is this true when the human skin is selected as the chart upon which her mysterious operations are delineated. I know that in the mind of the general practitioner great confusion, obscurity, and doubt sometimes overhang these morbid phenomena like a thick cloud. I know also, to some extent, that by patient study and critical observation the cloud can be removed, and darkness give place to light. In speaking thus, I say no more than the student, engaged in the pursuit of any of the natural sciences, is able to say in reference to the department of study that may occupy his attention.

In syphilitic Dermatology the elementary forms of disease are few, but their modifications are many.

At whatever period these eruptions may present themselves, their manifestation is to be interpreted as an effort on the part of the eliminative powers of the system to get rid of a poisonous element which interferes with its well-being. The disease is in the blood. Here it commences its life, as a minute, inappreciable atom received into the vital current by imbibition; and from that moment to the time when the cutaneous derangement is about to declare itself, it continues to circulate and mingle with the various fluids, and to pervade the different organs and tissues of the body. The furtive and silent process of contamination seems to be endowed with a strange vitality; strange, not by reason of its energy or activity, but by exactly their opposite. Its operation is exceedingly slow and gentle. It is feeble to an infinitesimal degree, when contemplated in contrast with the activity of the poison of hydrophobia, the virus

of serpents, of small-pox, of glanders, of dissection wounds, or of paludal miasmata.

Although the ulterior effects resulting from the persistent action of the venereal poison may be delayed, the blood at last becomes so profoundly deteriorated, that the organism can no longer endure the presence and the encroachments of the morbific principle, — and as is the case with all other poisons, so with this, nature institutes a process with a view to expel it; and although the external investment of the animal economy is usually summoned to inaugurate the great struggle of elimination, other organs and structures are required to share in the labor and participate in the disasters which the enemy is sure to inflict. The accumulated poison makes known its presence by a development, first in one tissue, then in another, by successive steps and at long intervals; each tissue and each development presenting a group of symptoms peculiar to itself. Hence we can see the propriety and advantage of classifying the morbid phenomena of the disease into primary, secondary, and tertiary stages or accidents, — an arrangement originally devised by Thierry de Hery, and recently revived and rendered popular by Ricord. In the adult subject, nearly all the syphilitic eruptions belong to the second stage; a few only are reckoned as tertiary manifestations. They all proceed from the same original, primitive poison. The syphilodermata of the infant, who derives the disease by inheritance, are the product of a secondary virus, which has been modified, diluted, and weakened, in consequence of its admixture with the blood and other fluids of the infected parent, before it is transmitted to the offspring.

Under the influence of the constitutional taint, we have eruptions that are named and known according to the elementary forms which they present; but all these forms exist also, independently of any syphilitic parentage. Ricord does not include the *bullæ* among his divisions of the syphilides. He considers *ulcerous* affections as possessing peculiar marks, that are almost invariably absolute and distinct from other ulcers. Gibert regards the *ephelides* as entitled to a place among the syphilodermata; but the syphilitic origin of such discolorations is extremely problematical.

To all who are familiar with the venereal eruptions, it is well known that time brings about important modifications in the

physiognomy and general characters of these eruptions; and with a view to render them more easy of comprehension, Professor Wilson, in the last edition of his work on diseases of the skin, has classified them in a tabular form, according to their chronological development. Thus, the eruptions belonging to secondary syphilis are: —

1. *Syphiloderma Erythematosum.*
   Roseola syphilitica,
   Maculæ syphiliticæ.
2. *Syphiloderma Papulosum.*
   Lichen syphiliticus,
   Lichen pustulosus.
3. *Syphiloderma Tuberculosum.*
   Tubercula syphilitica,
   Tubercula ulcerantia.
4. *Syphiloderma Pustulosum.*
   Rupia syphilitica.
5. *Syphiloderma Pilare.*
   Alopecia syphilitica.
6. *Syphiloderma Ungueale.*
   Onychia syphilitica.

The eruptions belonging to the Tertiary Syphilitic period are as follows: —

1. *Syphiloderma Erythematosum.*
   Erythema (vel psoriasis) palmare vel plantare,
   Lupus erythematosus.
2. *Syphiloderma Tuberculosum.*
   Tubercula mucosa,
   Tubercula ulcerantia, superficialia,
   Tubercula ulcerantia, profunda,
   Lupus ulcerosus, syphiliticus,
   Tubercula gummata.
3. *Syphiloderma Ulcerans.*

The Syphilodermata Hæreditaria are arranged thus, which is the order of their development, in the offspring of syphilitic parents: —

1. *Syphiloderma Erythematosum.*
   Erythema syphiliticum infantile.
2. *Syphiloderma Tuberculosum.*
   Lupus syphiliticus.
3. *Lepra.*

The foregoing is a list of the maladies which appear upon that vast and important organ, the skin, in consequence of the venereal affections. At a superficial glance, the number may seem large, even formidable and embarrassing; but it is no mere ideal enumeration. It is based upon facts as they present themselves with great uniformity in the history of venereal subjects. And I am confident that the more frequently and attentively the arrangement is referred to in the study of the syphilodermata, as they come within the observation of the practitioner, the higher will be the estimation with which he will regard it. There is no nomenclature more classical or scientific in principle, or more in harmony with the cutaneous lesions produced by syphilis, than the above.

The Willanean system is more simple than the foregoing, and if we are guided by it, and consider the specific syphilodermata according to their elementary forms, we shall have the following varieties, which are not at all at variance with Wilson's plan: —

Exanthematous Affections.
Macular Affections,
Papular Affections,
Squamous Affections,
Bullous Affections,
Vesicular Affections,
Pustular Affections,
Tubercular Affections.

DIAGNOSIS OF SYPHILITIC ERUPTIONS.

Color. — The color of venereal eruptions, in most cases, is *sui generis*. I say, in most cases; in some instances of genuine syphilis this mark or sign is totally wanting. The reddish, coppery tint is by no means a constant feature; and when we examine an eruption with reference to its color, allowance is to be made for the natural complexion of the patient, and sometimes for the influence due to the topical remedies that have been employed. The period or duration of the eruption is also to be considered. We are to take into the account the particular region which is the seat of the complaint. The age of the individual and his exposure to atmospheric or solar influences will likewise be entitled to consideration. If a person, with a roseolous or papular syphilitic affection, be exposed to the action of cold, the red, vermilion tinge will be more conspicuous than

under other circumstances. The temperament and the general condition of the system exert an influence upon the color of the skin both in health and disease, and should not be lost sight of when we examine a patient laboring under a suspicious cutaneous affection. Sometimes the catamenial function has an agency in modifying the character of an eruption; so has pregnancy, more especially if the malady be located upon the face. In the latter case the color of the skin will be no guide at all in our attempts to arrive at a differential diagnosis. The color of syphilitic eruptions is not uniform. Sometimes it has a violet tint, or it may present a coppery appearance, varying in the degree of intensity, in the same individual, as the disease progresses towards a cure or otherwise.

At the commencement of an eruption, especially if it be seated in a fine, white, delicate skin, the tint may be quite a brilliant red, and as the eruption acquires age, and is influenced by treatment, it may, and probably will, assume a dark shade, that is, a reddish, or yellowish brown. If the diseased skin be closely examined when the complaint is in its last stage, or when it is in fact passing away, the brown copper color, which has for so many years engaged the attention of observers, and which is still regarded by many practitioners as characteristic of syphilis, is usually apparent in a satisfactory degree. But if the disorder be in an active state, or in the incipient stage, with much roseolar blush upon the general integument, it will often prove a vain task to hunt for the pathognomonic copper color of the older writers. In some instances, indeed in many, well known from other circumstances to be of syphilitic origin, I have searched for the existence of this special tint upon the integument, and have not been able to detect the slightest trace of it. Once it was regarded as absolutely essential to meet with the copper stain, or to suspend any declaration of our diagnosis, if that diagnosis involved the idea that the affection was venereal. But that day, with me at least, has gone by, and I can say, "*nimium ne crede colori.*"

A reddish brown, with a slight ingredient of yellow or orange, is the best representative of the dull, copper color, and may be considered as a fair exponent of the hue which frequently characterizes the syphilodermata. It is not, however, an easy matter to present a true description or analysis of the various predomi-

nating shades and varieties of color that are met with in venereal maladies of the skin. To the practised eye, these affections, having any of the peculiar colorations alluded to, are recognized with sufficient ease, because these shades or tints rarely ever accompany any corresponding diseases which arise from non-specific causes.

In cases where *syphilodermata ulcerantia* have existed, the marks remaining upon the integument may perplex the mind of the surgeon not a little. The ulcers of rupia, and the ordinary ulcerations of syphilis, when they heal, leave behind them permanent and ill-looking cicatrices, presenting more or less of a purplish, dirty hue, or a brownish aspect upon the parts where the sores have been seated. This condition of the surface is generally considered indicative of syphilis. It is a concomitant of ulcerative venereal affections very frequently met with; but this brown appearance is also present in non-syphilitic complaints, where the person is greatly debilitated, and Wilson considers it to be an indication of cachexia, rather than of syphilis; and the frequency of cachexia with syphilis explains the occurrence of the coloration. The copper color, when present, generally affords strong circumstantial evidence of a venereal taint in the system; but sometimes it does not warrant any such conclusion or inference. For instance, when there is an eruption of impetigo or ecthyma, or ulcers of a non-syphilitic character, on the lower extremities, we not unfrequently find, in debilitated subjects, a tendency in the part to exhibit a coppery tint, in consequence of the dependent position of the limb, and the congested state of the minute cutaneous veins, and their remoteness from the centre of circulation.

I have heard eminent practitioners, both surgical and medical, decide that such and such a cutaneous affection could not be venereal, because the copper color was not to be found in connection with it; and knowing, as I do, that too much stress is still laid upon the circumstance of color by some respectable men in the profession, whose calls are far from being restricted to the private chamber or to the consulting room, I do not regard what I here offer upon the subject as a labor of supererogation.

But there is another diagnostic sign, more important, more constant, and more undoubted than color, and more reliable in every form of venereal eruptions. I allude to

ANÆSTHESIA, OR DEFICIENT SENSIBILITY OF THE SKIN.

It is well known to most practitioners that the ordinary, non-specific, cutaneous maladies, of every type, and throughout all their various stages, are accompanied by itching, smarting, tingling, and other painful sensations, in a greater or less degree. When a patient has any cutaneous trouble upon him that is not venereal, he will, first of all, complain of the itching and burning pain which he experiences, especially by night. There is always an exaltation of nervous susceptibility in the part after the fatigues of the day, and it displays itself in the disagreeable sensations just enumerated. So uniform is this fact, as an accompaniment of ordinary eruptions, that its announcement may be expected as a matter of course. But in the syphilides there is entire absence of all these sensations. The individual seems to have lost, as it were, all cutaneous sensibility. Large districts of integument will be involved in a papular, tubercular, or squamous form of disease, which may ultimately pass into broad ulcerations, and these latter take on an unfavorable phagedænic or rodent action, — all which would be attended with severe suffering in ordinary cases, — and yet it is truly astonishing to witness the slight inconvenience which the syphilitic patient realizes under these circumstances. He never so much as complains of itching at any period. If ulcerations are seated over or involve the muscles of locomotion, he will complain, of course, of inability to move about without suffering pain; but otherwise he would scarcely be conscious of their existence, at least so far as any discomfort is concerned. It is difficult to explain satisfactorily this almost total absence of sensibility in the skin. All we can say is, that it would seem that the virus, under the influence of which the syphilodermata are developed, has the power of diminishing the normal function of the nerve-filaments, or loops, while at the same time it affects the nutrition and health of the parts implicated in the most serious and detrimental manner, even to their ultimate destruction.

I will not, in this connection, dwell longer upon the insensibility of the skin when any of the forms assumed by the venereal eruptions are present. To my mind the fact is of more

importance than has usually been attached to it in guiding to a correct diagnosis; it is certainly of more value than the copper color, which we have sometimes known to be in the mind's eye, and nowhere else. In regard to the itching, or the absence of that condition of the skin, the testimony of the individual is always at our command. If he has a complaint of any considerable amount upon any part of the surface, and reports that it is attended with no irritation, we have very strong presumptive evidence in favor of its being a venereal disease. In our examination of a doubtful case we can always dwell upon this feature, in questioning the person, until we are fully satisfied that he has stated the fact as it is, and he can never know the drift of our interrogations on this point unless we inform him.

Apart from the copper color, and the absence of cutaneous sensibility, there are other features and resemblances which distinguish and associate the maladies under consideration into a separate class. The solitary patches are uniformly of a round figure; and, when aggregated, are arranged in circles or segments of circles. Particular regions also appear to be more frequently the seat of the disease than others, as the face, alæ nasi, forehead, and the back of the neck, especially the upper portion, just below the hair and near the mesial line. This is the case with nearly all the syphilodermata, commencing with the papular. When the morbid affection proceeds to excoriations, or open sores, the incrustations which are formed are thick, and of a dark brown or dark green color.

A venereal affection of the external surface will sometimes pass through all the types or orders before it reaches its state of maturity; that is, it will commence as a mere roseolous blush, then become vesicular or papular, tubercular, pustular, etc.

Cicatrices. — The cicatrices remaining after the ulcerations or sores have healed are circular in form, decidedly depressed, and in a majority of instances a bronzed color is perceptible for several months after the lesions have disappeared. At a later period the integument, on which the local disease has existed, becomes preternaturally white. If broad patches of skin have been involved, the mark that is left exhibits an aspect not unlike that occasioned by a superficial burn.

CHAPTER XXVI.

SECONDARY SYMPTOMS WITHOUT PRIMARY.

Before proceeding to the consideration of the syphilodermata as they appear under different types, I propose to relate a few cases which happened in my practice, and which were somewhat perplexing to me at the time of their occurrence, inasmuch as their origin, or mode of reception, was not conformable to the theory inculcated by Ricord. Such instances arise occasionally in the practice of other medical men. Indeed, they are numerous; and the fact is calculated to shake one's faith in certain views promulgated by that prince of syphilographers just named.

Case I. — Mrs. A., twenty-four years of age, was married eight months before I saw her. About three months after marriage a small, dry, papular eruption broke out on various portions of the skin, but was most abundant upon the forehead, face, shoulders, and arms, and upon the palms of the hands. The papules were seated on a dusky-red ground, and were of a pure lichenoid character. They gradually increased in size, as is generally the case, until they became about half as large as a common garden-pea at the base. They were discrete, and in a few weeks acquired the well-defined anatomical characteristics of tubercles in size, prominence, and hardness, and occasioned no itching or burning sensation, — in fact, no inconvenience of any kind. Upon the tongue were some ten or a dozen well-marked mucous tubercles, which came at a later period than the cutaneous lesion, and were mostly situated among the circumvallate papillæ. A preternatural redness, amounting to decided erythema, with moderate hypertrophy of the mucous membrane of the fauces and pharynx, was distinctly seen. The tonsils were swollen; there was some pain in the throat when she swallowed, or inhaled a breath of cold air; otherwise

she made no complaint. The husband was of a roving character, and it was known that he had the venereal complaint about the time of marrying this woman, who had never before been afflicted with any skin disease, nor had she any trouble in the genital organs, either antecedent to the symptoms here described, or synchronous with them. The family physician, Dr. W. E. Coale, had questioned her on all these points. He was well acquainted with the history of both husband and wife, and his diagnosis was, that the latter was suffering from secondary syphilis. I saw the case with him several times, and fully concurred with him in his views. That this woman ever had primary symptoms in the organs of generation there was not a particle of evidence.

Case II. — A few years ago, a young, unmarried man, a morocco-dresser, consulted me for an eruption, which made its appearance about a twelvemonth before I saw him. He frankly admitted that he had been on intimate terms with sundry girls of the town, but had never, to his knowledge, had chancre or other trouble on the penis or in the groin, nor had he ever had any suspicious urethral discharge or soreness. The case had been under the care of Dr. Winslow Lewis, who considered it syphilitic, and referred it to me as such.

When I first saw this young man, the complaint consisted of tubercles and sores, situated principally on the legs, where they were numerous, and in all particulars well marked with the usual syphilitic features, which need not here be rehearsed. The forearms were the seat of numerous superficial ulcerations, resulting from the softening of former tubercles. There were a few similar spots on the thighs. The face and trunk were nearly free from disease. Several cicatrices, scattered here and there upon the limbs, had the characteristic brown stain, and were depressed below the adjacent skin, as is the case generally where syphilitic tubercles ulcerate and heal. The patient had been troubled more or less with sore throat, which came on at the time when the cutaneous difficulty was first noticed. He was under my care sixteen months before he was able fully to resume his employment. I never entertained any doubt in regard to the specific character of the cutaneous and other symptoms in this instance, nor in relation to the statements of the patient as to the non-existence of any primary lesion.

Case III. — About a year after the occurrence of the preceding case, a frail young girl consulted me with reference to an extensive crop of pustules and ulcers, which had troubled her for more than two years, and which had gone on increasing very gradually in severity, and in their terrible work of undermining the general health, until she was reduced to a truly miserable condition. She was greatly emaciated and enfeebled, and was scarcely able to walk without assistance. On the day she called, she had travelled by railroad fifty miles, with the expectation of being received into the Massachusetts General Hospital, but, in accordance with the standing regulations of that institution in such cases, was refused admittance. On entering my office, she was so exhausted that she immediately lay down upon a sofa. She had taken no nourishment for fifteen hours. She was accompanied by a young man, her friend, who lost no time in making explanations.

The skin of this patient, where free from the eruption and its indelible imprints, had a leaden hue, with a blending of sallowness, thus showing a malformation and extreme poverty of blood, which frequently, and especially in delicate females, is seen to supervene after a long-continued action upon it of the venereal virus. So far as the invasion upon the external surface was concerned, the disease appeared to have a partiality for the face, the scalp, the fore-arms, and the knees. Upon the latter, three or four broad, superficial ulcers were in a pretty active state, requiring the protection of several folds of rag, and rendering it difficult for the girl to walk. The face was covered with numerous tubercles and ulcers, varying in size, and as to the different stages they had gone through. Some of the ulcers were nearly dried up; others, more recent, yielded a moderate discharge. The countenance was greatly disfigured, and formed a living counterpart to the horrible representations we meet with in some of the modern treatises on syphilitic dermatology. The mouth and throat had undergone equal ravages. In addition to the inflamed and hypertrophied condition of the amygdalæ, and the congested state of the fauces and mucous membranes generally, on the sides of the tongue there were several small ulcers. It was difficult for the patient to speak above a whisper, and even then the words were uttered in slow succession, partly from general exhaustion, and partly, no doubt,

because the morbid process had reached the chordæ vocales and the arytenoid cartilages. The patient knew that her complaint was syphilis, and she regarded her condition as nearly hopeless. She stated that she never, to her knowledge, had had primary symptoms. She was free to answer any questions, and appeared to have no sense of shame or delicacy.

Case IV. — February, 1858. I saw, in consultation, Mrs. R., a married woman aged thirty-four years, the mother of two healthy children. The patient reports that, about eighteen months since, an abundant tubercular eruption appeared upon various parts of the cutaneous surface. In the course of a few weeks, a portion of the tubercles on the limbs began to soften, and became pustular; at a little later period, some of the pustules passed into superficial ulcerations, but yielded only a trifling discharge. The legs, the arms, backs of the hands, and several of the fingers are now involved in the disease in its different stages. In some spots, hard tubercles, in others tubercles with a soft or incrusted summit, and in still other places patches of lepra syphilitica, are seen. Where the latter are partially healed, the integument is extremely livid. The whole of the face, including the nose, is now dotted over with hard tubercles in juxtaposition, but not confluent. Some of these tubercles are unusually prominent. At a distance of a few feet, the woman presents the aspect of a person having variola at about the seventh day of its existence. There is no sore throat, and never has been. During the past two months there has been pain in the head and limbs, exasperated by night, and greatly interfering with sleep. She states that, some four months ago, when she was more feeble than now, her hands and feet were as blue as if she had cholera, — were cold and swollen.

Mrs. R. is an intelligent, well-educated woman. She reports that she has never experienced any morbid symptoms in the genito-urinary organs. She has resided in North Carolina, and was there when the present trouble first broke out. She was under the care of a highly reputable gentleman, who, in the incipient stage of the complaint, regarded it as venereal, but subsequently, as the lady states, changed his diagnosis, and considered it a simple, non-specific ecthyma. The case has recently

been examined by several physicians in Boston and vicinity, and they all agree that it is purely venereal.

I am quite well aware that it sometimes requires no little tact to evoke the truth from the polluted recesses of the mind in syphilitic subjects. In regard to this tact or skill, I claim only an ordinary measure, as I have already confessed. Generally speaking, I know that the denial, on the part of the patient, that primary symptoms have existed, does not amount to the weight of a feather in the scale of evidence, unless it is substantiated by other testimony. If this testimony be strongly corroborative of the denial, then the statement of the witness, I think, should be allowed its full claim to favorable consideration. I do not propose, however, to enter into any special pleading in behalf of the individuals whose symptoms have been sketched above. They have not been introduced in this connection for mere effect, but for the purpose of presenting what I consider to be facts in the history of syphilis, and which are important to be known by every practitioner who has any professional dealings with this strange disease.

According to Ricord and his school, syphilitic eruptions are always consecutive to chancre; and therefore the subjects of the cases which I have related must all have had primary chancre. I must say, nevertheless, that no theory or hypothesis is sufficient to convince me that the facts in the instances I have adduced were other than what is stated. If any one will consult Wilson, he will find cases similar to those above related. Wilson's opinion is, that the syphilitic poison can be taken directly into the system through the circulation, without entering the lymphatic channels; and in this way the secondary manifestations may appear, without antecedents of a primary character. He relates the case of a medical gentleman, that is directly in point, as confirmatory of what I have stated. I will here transcribe the last paragraph: "On mentioning to him," says Wilson, "my conviction of his case being constitutional syphilis, he told me that, although he had been repeatedly exposed to the dangers of contagion from impure connection, he had never had a symptom of primary disease, — that is, nothing that ever attracted his attention, or called for treatment. With regard to the disease, there is no doubt as to its nature in my mind; and

I can only come to the conclusion that this case is an illustration of absorption of the syphilitic poison by the system, without the development of the local or primary disease."

At a recent meeting of the French Academy of Medicine, the subject of transmissibility of secondary syphilis was brought up for discussion; and M. Velpeau stated that he did not hesitate to maintain that all, or nearly all, the manifestations of secondary syphilis are contagious. He founds his belief of this upon the long-standing opinion on this subject, the general assent of physicians to its truth, and the daily experience of the profession, as well as upon clinical observations, the fact of its hereditary transmissibility, and the results of inoculation itself. Probably no man in the profession has seen more of the operations of the "venereal ferment" than Sigmund, of Vienna. He is a firm believer in its communicability from secondary affections, such as *plaques muqueuses*, etc. Dr. Henry K. Oliver, of Boston, who has recently enjoyed the instructions of this distinguished German professor, states: "I have seen him produce a true chancre by inoculation from a *plaque muqueuse*. He does not lay so much stress upon the Hunterian chancre as Ricord does, insisting that constitutional syphilis is by no means always preceded by an indurated chancre, especially in females. He says it is an every-day occurrence for females to enter his wards with constitutional symptoms and a chancre quite free from this induration; and he thinks, if Ricord had seen as much of this disease in females as he has, he would have become convinced of this fact." * Hebra, of the same University with Sigmund, teaches the same doctrines to the medical classes.

Langston Parker relates two instances in which the secondary taint was communicated by the husband to the wife. In both cases the females were entirely exempt from all disease in the urino-genital organs. They were carefully examined with reference to this fact, and not the slightest degree of irritation, sore, excoriation, or discharge, could be detected in either. In both instances the wives had almost precisely the same symptoms that were developed in the husbands.

Mr. Porter, Professor of Surgery in the Royal College of Surgeons, of Ireland, is a believer in the doctrine that lues

* Vide Boston Med. and Surg. Journal, Aug. 20, 1857. Letter to Dr. J. M. Warren.

venerea can be communicated by the seminal fluid. "However unprepared we may be," says he, "to admit the doctrine, and however contrary it may seem to the general laws of the animal economy that two distinct — nay, totally different — fluids should be vehicles of one and the same poison, I think a careful examination of facts will convince any unprejudiced inquirer that the seminal fluid possesses this most unhappy quality, and that in the mysterious process of generation it may be the medium of contamination without the intervention of a single drop of purulent matter." The facts which this eminent surgeon has observed are, he thinks, sufficient to establish, as a law of syphilis, that the semen of a diseased man, deposited in the vagina of a healthy woman, will, by being absorbed, and without the intervention of pregnancy, contaminate the woman with the secondary form of the disease, and that without the presence of a chancre or any other open sore either on the man or woman.

Mr. Waller, of Prague, published, in 1851, the results of his researches on the contagious character of secondary syphilis. Among other things he states that inoculation with the secretion of secondary syphilitic ulcers on healthy subjects may produce in them secondary syphilis. Sperino, of Turin, has produced syphilis by inoculating with matter taken from secondary ulcers.

Contagion of the Blood. — There are well-authenticated instances of secondary venereal symptoms being caused by contagion from the blood of an individual affected with secondary syphilis. Waller made an experiment on a lad of fifteen years, by inoculating him with the blood of a young girl who had had primary sores on several occasions, and who, at the time the boy was inoculated, had tubercles on the face, and venereal blotches on the surface of the whole body. In thirty-four days after the operation a few distinctive venereal tubercles were developed near the point of insertion. These were followed by an extensive exanthematous eruption, — that is, a characteristic roseola; and the latter was succeeded by pimples and tubercles on various parts of the surface, and which were easily diagnosticated as syphilitic.

That syphilis has been communicated by vaccination admits of no dispute. Dr. Alexandre Viennois, pupil of M. Rollet, of

Lyons, has devoted much study to this subject, and he cites numerous cases in which the venereal poison has been conveyed along with the vaccine lymph taken from persons who have had latent constitutional syphilis. The venereal infection thus produced is derived from a particle of blood accompanying the lymph, and shows itself in the development of the papular, vesicular, or pustular eruptions, but never in the form of a primary chancre.*

The following report of three cases of venereal disease, originating in an infant affected with hereditary syphilis, is from the records of the Massachusetts Hospital: —

Mrs. —— was admitted to the Massachusetts General Hospital March 11, 1853, suffering from tertiary syphilis. The history she gave of herself is as follows: She had always enjoyed good health until seventeen months previous. At that time she and her little daughter, a child of nine years, on the same day drew the breasts of a woman living in the same house with them, and who had for some time been wet-nurse to a child which, it subsequently became known to her, was affected with hereditary syphilis. The sudden death of this child had left the nurse with the inconvenience of over-distended breasts; and it was to relieve her discomfort, on her return to her house, that the patient, with her child, several times during one day, performed the charitable act above mentioned. The woman had, at the time, sore nipples and an eruption on the skin, the true nature of which she was ignorant of. In about a week from the time of drawing her breasts the patient and her daughter began to have very sore mouths, and the throat of the patient became so much affected as to prevent her swallowing anything but liquids. She was under medical treatment for a month, taking mercurials, etc., and at the end of that time was well of her primary trouble. Twice, since the first attack, she has had similar symptoms, in one instance continuing three months. At the time of her admission to the hospital her hair was quite thin, and the scalp was swollen, painful, and tender on pressure in various places. Her mouth could only be partially opened; its roof was slightly ulcerated, and there was great hoarseness. Ten months before, a node appeared on each

* Vide British and Foreign Medico-Chir. Review, July, 1861, p. 54.

tibia; and that on the left suppurated, was opened several times, and had now healed. The one on the right remained of half the size of a hen's egg, and was still enlarging and quite painful. There had been more or less rheumatic pain in her legs for the same period. There had been no eruption on the skin, nor any affection of the genital organs. The patient was treated with iodide of potassium internally, and by the local application of tincture of iodine, and was discharged well on the 27th of the following month, there remaining only a trace of the node on the right tibia.

The daughter of the above patient, aged fourteen, entered the hospital October 6, 1857. At the time of her mother's first attack, she was similarly affected, although with less severity. From these primary symptoms she soon recovered under medical treatment, although she has been several times troubled with sore mouth since. Nine months before entrance, she presented herself as an out-patient, with ulceration of the soft palate and back of the throat. For this she was treated with the iodide of potassium and by the local application of tincture of iodine without benefit. At the time of her admission to the hospital, the ulceration had progressed so far as to have destroyed the uvula and a portion of the velum on both sides, leaving a triangular opening with ragged edges. The anterior pillars had been destroyed. There was much inflammation of the whole fauces; and upon the back part of the throat were large, whitish patches of ulceration. During the time of her treatment as an out-patient her nose had become considerably depressed, particularly at the upper part. After admission to the hospital she was treated with iodide of potassium and compound infusion of gentian, subsequently with tartrate of iron and potash, gr. xx. ter die, and by the injection of a solution of sulphate of zinc into the nose, the septum having become perforated by ulceration. A weak mixture of tincture of iodine and water was afterwards substituted for this injection. Under this treatment the patient improved, portions of bone coming away at times, one of which appeared to be the vomer. She entered under the care of Dr. Gay, and passed into the hands of Dr. H. J. Bigelow, who continued the treatment, and she was discharged well November 25.

TRANSMISSION OF THE VIRUS FROM THE NURSE TO THE INFANT, AND VICE VERSA. — Upon this subject, M. Trousseau recently communicated the following facts and opinions in a lecture at the Hotel Dieu of Paris: —

"I come now to the recital of cases which thus establish the possibility of the communicability of the disease from the child to the nurse.

"One of my professional brethren of Paris invited me to a consultation in the family of one of his patients. He informed me that the lady of the house was delivered, seven months before, of a healthy child, which became sick fourteen or fifteen days after birth, but without any manifestation of disease of the skin.

"Toward the end of the second month, and at the commencement of the third, a cutaneous affection supervened, of a nature to suggest the idea of syphilis. A little later, the nurse showed on her breast symptoms not at all encouraging; engorgement of the axillary glands of the corresponding side, an eruption of roseola over the whole surface of the body, and sore throat.

"The physician inquired of the father of the child whether he had ever had syphilis; this he denied emphatically. To address a similar question to the mother was a thing next to impossible; so my friend was content with satisfying himself that she presented no traces of the disease. The nurse grew so much worse that it became necessary to confide the child to another woman. Three weeks after, the second nurse became affected in the breast. I was called in a short time after, and satisfied myself, by my own observation, of the existence of the most unmistakable signs of the diathesis. As for the child, it had a hypertrophy of the liver, as well as lesions of the skin and mouth.

"Will you admit that both of these women had been previously infected? This would, to say the least, have been a singular coincidence; but the first of them was a married woman and had been remarkably healthy, as well as her husband, before she began to nurse the child. The second was a young girl from the country, confined four months previously, and having no knowledge of this disease. Nevertheless they were both infected, and both in the same way!

"Such facts are very serious, and their number begins to be quite considerable. Secondary affections are, without doubt, transmitted with much more difficulty than primary ones, but

they are, nevertheless, transmitted; and when communicated from the child to the nurse the contagion depends upon special conditions, on which I wish to fix for a moment your attention."

The following quotation from Professor Bennett, of Edinburgh, is worthy of a place in connection with this subject. Speaking of syphilis, he says: "The secondary forms of the disease are always the result of inoculation; but this may arise not only from the poison being absorbed directly from a primary sore, but may be communicated by the mother to the fœtus in utero, by the infant to the nurse, and again by the nurse to the infant. The following case, which was most carefully investigated, and was the subject of legal proceedings, illustrates how nurses may be affected by syphilitic infants:

"In 1842, the late Dr. W. Campbell brought to me a woman with a child in her arms, to obtain my opinion whether a skin eruption on the latter was or was not syphilitic. I pronounced that it was, and that the woman should cease to nurse it, although her nipples were at that time in no way affected. The child was the offspring of respectable parents, and had been sent to her to nurse. In consequence of my opinion, the infant was returned to the friends, whose medical attendant maintained the eruption to be non-syphilitic. The woman who applied to me (nurse 1) was received as wet-nurse into another family, and the child was sent to another nurse (nurse 2.) In a week the child died; and a few days afterwards nurse 2 was attacked with sore nipples. Nurse 1, shortly after entering her new situation, also perceived sores round her nipples; and the medical attendant of the family, after consultation with me, caused her to be discharged. She, in consequence, brought an action against the medical man who had caused the syphilitic infant to be sent to her, and mistaken the disease. The lawyer she employed then took me to visit nurse 2, whose whole body was covered with a syphilitic tubercular eruption. Both nurses ultimately succeeded in obtaining compensation from the medical attendant." *

In the New York Journal of Medicine for November, 1857, Dr. J. L. Smith, physician to the North-Western Dispensary of that city, relates an instance of syphilis, communicated from a nursling to the nurse. The infant, at the age of five months,

* London and Edinb. Journal of Med. Sciences, 1852, p. 570.

was brought to the dispensary for treatment, and was under Dr. Smith's care, as was the nurse also. The syphilitic character of the disease, in both patients, was very apparent. Dr. S. takes occasion to cite cases reported by Dr. Bulkley, of New York, Dr. Campbell, etc.

Mr. Holmes Coote, assistant surgeon to St. Bartholomew's Hospital, speaking of secondary syphilis, remarks that some of the severest cases occur in young and delicate females, in whom there is no account of primary disease. He relates cases, and he regards secondary syphilis as contagious, and says that it behooves the medical attendant to be well apprised of the fact.

Vidal says: "As to the transmissibility of secondary accidents, aside from hereditary descent, the doctrine is proved by the fact of the infection of the nurse by the child affected with consecutive tubercles, and the contagiousness of the mucous tubercle in the adult."

Cazenave, whilst admitting the rarity of the contagion of secondary symptoms, acknowledges that it is impossible to deny its occurrence, but that certain local circumstances are indispensable to such a result; these are a humid or moist secreting surface, and prolonged contact. Precisely the views entertained and advocated by Sigmund.

M. Diday regards the lesions of hereditary syphilis as contagious as primary accidents.

At a recent meeting of the Boston Society for Medical Improvement, the subject of the communicability of secondary syphilis gave rise to an animated discussion, the substance of which is reported as follows: — *

"*Nov. 8th.* — COMMUNICABILITY OF SECONDARY SYPHILIS. — Dr. W. E. Townsend made further mention of the case reported by him in January last, — that of a woman who, two years previously, had a venereal ulcer on the breast, followed by secondary syphilis, this being caused by the secretions from the nose of a child, which she was nursing, dropping on a scratch at that place.

"At that time some gentlemen expressed a doubt as to the character of this ulcer, thinking the probabilities were against its being of a syphilitic nature.

* Vide Boston Med. and Surg. Journal, January 6, 1859.

"Two years and a half afterward, in August of this year, the same woman was confined at her full time; the child at first looked well, but in the course of four weeks bullæ appeared on its ankles and feet, followed by inflammation of the mucous membrane of the nose and mouth, filling up those passages and obstructing the passage of air and nutriment, in consequence of which it died within six weeks of its birth.

"This child died, undoubtedly, of hereditary syphilis, derived from its mother. The previous children of these parents have been, and are now, stout and healthy, and the father, to the best of Dr. T.'s knowledge and belief, never had any syphilitic disease. Similar cases have lately been reported by Langston Parker, Esq., in his lectures on Infantile Syphilis, in the Lancet for August, 1858.

"Dr. Coale alluded to a similar case reported in the Medical Times and Gazette.

"Dr. Townsend said he regarded the question as to the communicability of secondary syphilis a very important one, as bearing on marriage, the physician being often asked as to its advisability, when the husband had had primary disease.

"Dr. Townsend here briefly alluded to another case. Mrs. K., seven months after marriage, had a stillborn child. Two years after marriage, she had a second, likewise stillborn. Three years after, she had a third at full term, which lived for eight months, during five of which it had well-marked infantile syphilis. Four years after, she had a fourth, which has never been ill, but is still a feeble child, though its mother has always been, and is now, a hearty, robust woman.

"About a year before marriage her husband had syphilis, and was attended by a physician of this city, having a large experience in such cases. He supposed himself entirely cured, and presented no appearance of disease.

"Dr. Putnam alluded to a case in which a patient, who had had syphilis, had supposed himself cured before marriage; his wife gave birth to a child at seven months. There was no question as to the nature of the cause.

"Dr. Abbot mentioned the opinion of Trousseau, that when the disease had once existed there is no security against its reappearance in the offspring. Several cases are on record where the disease is thus entailed. That there is no certainty as to its

reäppearance is evident from another case mentioned by Trousseau, in which the patient, a cavalry officer, who had had syphilis several times, and was married, had children who exhibited no trace of the disease.

"Dr. Hayward, Jr., in connection, reported the following case, as tending to confirm the theory of the communicability of secondary syphilis.

"In describing this case, the two first letters of the alphabet are used to indicate the ladies referred to, but with no reference, of course, to their real names.

"*December* 17, 1856. — Mrs. A. was confined in the country; she soon had fissures in the left nipple, and her own baby not being strong enough to draw the breast well, she borrowed one nine weeks old from a poor family in the neighborhood. This child nursed her four times. The fissures in a few days became sores, and extended until they involved the whole nipple. During the first week in April a dark red eruption appeared all over her body, arms and limbs; this gradually assumed a copper color, and continued to spread until, by June, it involved the whole face. The infant had a similar eruption appearing about the same time.

"*July* 18, 1857. — Mrs. B., the mother of the above-mentioned patient, came to Boston to consult Dr. Hayward concerning her daughter and grandchild, and, finding he had gone to Europe, she called upon Dr. Hayward, Jr., for advice. From the statement of the case given above, which she then made; from the fact that the infant who nursed Mrs. A. died in about two weeks after she was taken sick, covered with an eruption, and (as she expressed it) 'rotten' with what the child's father said was small-pox; and from the circumstance that the child's father refused to allow any physician to attend upon his child, Dr. H. came to the conclusion that Mrs. A. and her infant were suffering from syphilis, and requested to have them brought to Boston, that he might see them before prescribing. Mrs. B. said that her daughter was so mortified at her appearance, her whole face being covered with the eruption, that she positively refused to travel in any public conveyance. Dr. H. therefore prescribed for her hydriodate of potassa and decoction of sarsaparilla internally, and black wash, composed of a drachm of calomel to eight ounces of limewater, externally; the infant to drink the sarsaparilla, and have the black wash applied.

"*Aug.* 14. — Mrs. B. called again, and reported her daughter and grandchild as much better, the eruption very much diminished. She was directed to continue the same treatment. Mrs. B. at that time supposed herself well.

"*Sept.* 11. — Dr. H. was sent for to see Mrs. A., who had come to Boston. She had, at that time, extensive traces of the copper-colored eruption on her face, and on various parts of her body; but this was dull, except when exposed to changes of temperature, and Mrs. A. said that it was steadily fading away. She complained of much suffering in the left eye, and, on examination, it was found that she had a severe attack of iritis; the attack began in the right eye, and shifted to the left one. She had taken the hydriodate of potassa and sarsaparilla up to that time. She was then ordered to take a pill, composed of one grain of calomel and one third of a grain of opium, three times daily, till the gums were slightly affected, and the mercurial action was kept up moderately for several days longer. Under this treatment the iritis speedily improved, and when she left town, Sept. 25, the eye was very much better, and it is believed that she had no trouble with it since.

"On the first or second visit to Mrs. A., at this time, Mrs. B. requested an examination of her throat, which she said was sore. Dr. H. examined it, and found, to his surprise, that it presented every appearance of syphilitic sore throat. On questioning her, it was found that she had had the entire care of the sores on her daughter's breast, and had sometimes washed cloths which came from them; but that, although she had had little cracks about her fingers repeatedly, she had never had any sores on her hands or arms until about two months and a half before this time. At that time, being about the middle or latter part of June, when the baby was six months old, Mrs. B. held it while the physician lanced an abscess on the right side of its neck; this discharged freely a greenish-colored matter, which ran over her left hand and wrist. On the back of the wrist the skin was broken at the time; and in about a fortnight after the abscess was opened, a sore resembling a common boil was formed upon the back of the wrist where the abrasion had been. This suppurated; but, when it discharged, Mrs. B. noticed that there was no core to it, as in the case of a common boil, and, moreover, that the matter discharged from it was of a greenish color,

and resembled that which came from the infant's abscess. This sore on the back of the left wrist was followed by red and copper-colored spots, similar to those which Mrs. A. had had, and finally by sore throat. The sore throat yielded to fumigations of cinnabar and applications of nitrate of silver; and when that was well, she was ordered hydriodate of potassa and decoction of sarsaparilla, under which the copper-colored eruption slowly improved, though she has been at times troubled with it since, and is not quite free from it now. Dr. H. thinks that there was no loss of hair in Mrs. A.'s case, and is positive that there was none in Mrs. B.'s, except where the eruption was upon the scalp. In the course of the treatment, he saw and conversed freely with both Mr. A. and Mr. B., and from their appearance and characters, and that of their wives, firmly believed that all this disease, misery, and mortification arose from suckling a diseased child upon a fissured nipple. With this conviction, he remarked that it seemed to him of the utmost consequence, first, that, before allowing any strange child to nurse a woman, the family physician should be consulted, which was not done in this case; and, secondly, that every physician should carefully examine the state of a child's health, and also inquire, as far as he is able to do so, into the character and health of its parents, before he allows it to nurse his patient.

"Dr. H. J. Bigelow had expressed doubt as to the nature of the ulceration spoken of, and had perhaps been alluded to by Dr. Townsend. Without at all denying the possibility of the venereal lesion and specific secondary contagion in this case, he had felt the evidence of it insufficient to justify his own belief in it. The additional evidence now presented is, that a second child, born two years and a half after the first, presents, in four weeks, bullæ on the feet, and 'inflammation' of the buccal and nasal mucous membrane. These symptoms, if specific (which is not certain), must have been hereditary at this late period; and this fact of inheritance is adduced as evidence of the protracted existence of the lesion in the mother's constitution, which, in its turn, is relied on to show that such lesion was originally received in a secondary stage from a nursing child, and not as a primary lesion from a husband, or from any other source. While Dr. B. had great regard for the opinion of Dr. Townsend, and, in general, for the sort of conviction which

results from a detailed and personal examination of evidence of any sort, he did not think that the case cited was one which could be relied on to convince other people. Primary lesion, or *chancre*, is *always* inoculable in an unsyphilized subject. Secondary and constitutional lesion is well known to be *almost never* so. The present discussion is to the point whether secondary and tertiary syphilitic disease is *ever, in exceptionable cases*, communicable by contact or inoculation. Ricord, after years of honest and careful experiment, decided that it was not. Subsequent experimenters have since thought that in rare cases it may be, and it seems actually probable that it is. But, as the comparative ignorance which prevailed in respect to the whole subject of syphilis, before the masterly elucidation of Ricord, was due to the imperfect analysis of previous evidence, justice to the labors of that observer demands a rigorous scrutiny of any case adduced in contradiction of his results. Grant a venereal eruption to be identified as such (which is often difficult, sometimes impossible), the question of its origin is then between a rare contagion from a previous secondary or tertiary eruption in another person, and its regular, every-day sequence from a primary sore, persistently denied or honestly ignored by the individual last affected. No other medical subject presents, like this, the sacrifice of character and of social relations as obstacles to its elucidation, and evidence should be weighed accordingly.

"Dr. B. believed that constitutional syphilis was, on all the evidence, contagious as well as hereditary, but was rarely so, and that the protracted contact of the nursing child was the more frequent condition of this contagion. Of course no healthy woman should knowingly nurse a syphilitic child, and *vice versa*. As to the question of marriage, he thought that the lapse of a year from the *complete disappearance*, under proper treatment, of light constitutional symptoms, and of two or three years, more or less, in severer cases, was as strong a guaranty of immunity as posterity had a right to expect, or, at any rate, as they generally received.

"Dr. Lyman alluded to the change of opinion in England, and on the Continent, upon this subject; also, to the fact that the English journals contain frequent reports of cases which give direct evidence of the communicability of secondary disease.

"Dr. Durkee considered that the preponderance of medical opinion is in favor of the communicability of secondary symptoms. The singular doctrine, advanced some years since by Ricord, that, of all venereal affections, indurated chancre alone furnished inoculable matter, had been the occasion of awakening other distinguished observers to the general subject of contagion arising from syphilitic manifestations. The facts furnished by such men as Vidal, Velpeau, Trousseau, and Cazenave, of France; by Wilson and Langston Parker, of London; by Professor Porter, of the Royal College of Surgeons, of Ireland; by Sigmund and Hebra, of Vienna, and many other high authorities, had now become quite numerous, and they were in direct opposition to the views of Ricord. These facts are constantly accumulating, and the most respectable medical journals teem with well-authenticated instances of infection derived from secondary lesions. Two cases of this kind, related by Professor Bennett, of Edinburgh, are entitled to our remembrance, whatever theory we may entertain on the subject.*

"In view of such facts, Dr. D. asked if any member of this society would feel justified in giving his professional opinion that a syphilitic infant might safely be committed to the custody of a healthy wet-nurse; or, to reverse the circumstances, and suppose that a healthy nursling was in want of a wet-nurse, and a woman with a large breast of milk should desire the situation, but, upon examination, should be found to have secondary syphilis, would any gentleman present be inclined to encourage the friends of the child to commit it to the fostering care of such a woman?

"Dr. D. remarked that in his own practice he had seen several cases of secondary syphilis, in both sexes, where no evidence whatever of primary lesion existed. He considered that the proof as to the communicability of secondary lesions was as reliable as that relating to the contagiousness of chancre. Once he was a believer in Ricord's theory. But facts observed in his own practice, as well as those adduced by the most trustworthy men from all quarters of the medical world, had fully convinced him that Ricord was not sound on this point. He is preëminently entitled to praise for the great scientific advance-

* These cases are inserted on p. 291.

ment he has made in regard to the pathology and treatment of venereal affections; but he is not infallible.

"Dr. Strong remarked that he did not consider this a question upon which the profession is at present ready to decide. Observations were not as yet sufficiently numerous to form the basis of a correct opinion. He had for a long time differed from Ricord, having seen many cases in which the evidence of the communicability of secondary syphilis was undoubted, but was yet of the opinion that the time had not arrived to establish a pathological conclusion.

"Dr. Jacob Bigelow remarked that he had been much interested in the discussion. There was one point to which he would allude, that might tend to reconcile the differences in the various reports upon this subject; and this is the change of character that diseases sometimes undergo in different periods. Cholera, for example, was formerly a tropical disease; it being only about thirty years since it spread toward the north. Plague once visited Great Britain and various parts of the Continent, committing terrible ravages; now it is not known in those countries. Yellow fever was supposed, thirty years ago, to be non-contagious; while, at present, serious doubts are entertained whether it be not sometimes contagious. Typhus fever seems to be at some times contagious, at others not at all so. Syphilis had undergone several changes in its character within a half century. At one time the doctrine of Hunter was well established. Not long after, the chancre was found to vary so much as to render it necessary to define what was meant by the *Hunterian* chancre; and it afterward became so varied in character and appearance, as to make it doubtful whether there were not as much of qualified or spurious syphilis as of the true disease. We know that the contagiousness of small-pox differs in different years. Is it not within the bounds of possibility that syphilis may, under different circumstances of epidemic predisposition, be more communicable at one time than at another?

"Dr. Strong was not inclined to regard these apparent differences in the communicability of diseases as owing to any change in their character, but rather to faulty observation, or perhaps to a difference in the predisposition of patients."

The following interesting case was kindly furnished me by Dr. S. L. Abbot, Physician to out-patients of the Massachusetts General Hospital.

SECONDARY SYPHILIS COMMUNICATED TO AN INFANT BY AN ATTENDANT.

"*April* 25, 1859. — A little girl, one year old, was brought to me by her mother, presenting a well-marked syphilitic affection. There were numerous superficial ulcerations on the inner surface of the cheeks and lips, a slight impetiginous eruption on the outer surface of the lower lip and chin, and an abundant growth of mucous papules on each side of the anus, passing forward to the genital organs, and in both groins. The growth in the latter site was very remarkable for its almost perfect symmetry of arrangement; consisting of five or six circular, distinct, nummulated patches, each somewhat larger than a half dime, rising from one to two lines above the surrounding surface, and presenting in their arrangement and grouping almost complete identity in both groins. There could be no question as to the nature of the disorder. What was its history and probable origin? This was given me by the mother, who had every thing in her appearance to recommend her as a worthy, respectable, reliable person, as follows: —

"Early in the previous October the child was taken with scarlatina, and required the care of an extra attendant at that time, the mother being too much occupied with her profession — that of a dressmaker — to allow her to take exclusive charge of it. Her immediate friends and acquaintances were unwilling to expose themselves to the contagion of the disease, and she accordingly availed herself of the services of a woman living in her neighborhood, with whom she had but a slight acquaintance, but who was recommended to her by her extreme fondness for children. She had, it is true, heard disparaging remarks about her, but as she was the wife of a man whom she considered respectable, she had not given much heed to them. The woman was a faithful nurse, very fond of the child, and was in attendance upon it more or less constantly for three months. During this period the child continued to be suckled by its mother. The mother observed, at the commencement of the nurse's attendance, that she had a very sore mouth, the corners of it being greatly disfigured and covered with crusts. Apprehensive that some disorder might be communicated to her child, although not dreaming of the possibility of any syphilitic con-

tagion, she questioned her about her mouth, and was told, in reply, that the trouble was only 'canker,' to which the doctor was applying caustic every day. She did admit, however, that some months previously she had had a complaint of a venereal character, of short duration, which she had taken from her husband. She had been well of this, however, for months. The natural caution of the mother, notwithstanding, led her to check her frequent impulse to kiss the infant; but in spite of this she frequently observed her disobeying her injunction, and imprinting her poisonous caresses directly upon the mouth of the little one. Her care of the child ceased at the end of three months. A few weeks after this, probably about two months, the child was observed to have sore mouth, which was not considered of any special importance by the mother, who looked upon it as 'canker,' such as young children are subject to. This continued three or four weeks without benefit from the domestic remedies employed, when the mucous papules made their appearance. These had existed three weeks at the time the child was brought to me. It seemed at once probable that here was one of those rare cases of the transmission of secondary syphilis, and transmission in a very unusual way. The most thorough and searching inquiry failed to elicit any evidence which should criminate the parents. Four other children of the same parents are living and perfectly healthy, and have never shown any symptoms like those recorded above. The father admitted that he had had gonorrhœa fifteen years since, some years before his marriage. He was previously unknown to me; but the frankness of his manner, and the extreme solicitude of both parents in behalf of the little one when they learned the real nature of her affection, had great weight with me in satisfying me that they could not, knowingly at least, have had any direct connection with the infliction of this grievous disorder upon it. In order to supply all the evidence possible, the mother submitted most willingly to examination, and not a trace of disease, recent or old, could be found on the external organs of generation, or by specular exploration of the vagina and uterus. No evidence therefore existed to implicate the parents. It was highly desirable, if possible, to obtain an examination of the woman from whom the evil was supposed to have sprung. Luckily she was within reach, and without hesitation presented herself to me for

examination, and, judging from her semi-indignant manner of address, for acquittal from all suspicion. She admitted at once the fact, that had been previously stated, of a venereal complaint of short duration, of which she recovered some time before taking charge of the child. The complaint, she said, was a slight 'running' from the vagina, which lasted but a few days. She was treated by her husband (who, according to her account, pleaded guilty to imparting it to her), he having had some experience formerly in compounding medicine in an apothecary's shop. The occurrence took place soon after their marriage, and the disease in the husband was said to be the remains of a disorder contracted before marriage, of which he had supposed himself cured. Her mouth was still sore, she having tried various physicians without relief, all of whom called her disorder 'canker.' The angles of the mouth were ulcerated and swollen, bearing evidence of the long duration and treatment of the disease; there was a superficial ulcer, as large as the nail of the little finger, and covered with lymph, on the inner surface of the lower lip, which she ascribed to the pressure of the teeth; just within the angles of the mouth, on the inner surface of both cheeks, were similar ulcers, with turgid, indolent edges. I unhesitatingly assured her that she had syphilis in its secondary stage. The ulcers were identical in appearance with those so often seen accompanying syphilitic sore throat, and which are so apt to continue, now better, now worse, for a tedious period. Her mouth, she said, was in about the same condition as when she had charge of the child. There was no affection of the throat nor any indication of former disease there; neither did I see any trace of cutaneous disease. The child's mother, however, had informed me that she noticed a *scurf* on her hands at the time she was in her employ. On farther inquiry, I learned from the woman that she had miscarried three times within a year, each time before the completion of the third month of pregnancy. After one of these abortions, the occurrence of which she attributed to weakness, she lost her hair, owing, as she thought, to the subsequent fever. I did not make any further examination, as information which I had received of her history subsequent to the time when she had charge of the child made any facts which might have been thus obtained of no special value. This, then, is the whole history,

and I am unable to resist the conviction that the child derived its disease from her attendant, who was affected with it at the time, *probably*, in a secondary form. The difficulty of obtaining final, irrefragable evidence in such a case is, of course, extremely great, almost amounting to an impossibility; but, if circumstantial evidence can insure conviction, we have here, I think, a very strong case.

"It may be said, granting the fact that the woman had syphilis, how do you know she did not have chancre in the mouth, from which the disease was communicated to the child? It is extremely improbable that she had for two reasons: first, the assurance of the mother and the woman herself that the disorder in her mouth is in the same condition now as it has been since it first appeared, — a statement made of course without any knowledge of its professional significance, and according with the well-known facts in similar cases; and, second, there is no evidence that the child has had any different affection of the mouth from that existing when I first saw it, and which did not appear until some weeks after all intercourse with the woman had been broken off.

"Furthermore, it is noticeable that the disease in the child is not the usual *hereditary* form. In the great majority of cases, that appears as roseola or psoriasis, with ulcerations, etc., and almost always shows itself within the first few weeks after birth. To be sure there are exceptions to this, but they are of extreme rarity.

"It should be remarked that the left nipple and areola of the mother were inflamed and slightly excoriated at the time the child was brought to me, and had been so for some days; and the mother stated that she nursed the child almost wholly from this breast. There was no fissure or ulcer, only an inflamed and superficially excoriated appearance. The facts in the case, then, may be summed up as follows: —

"1. A previously healthy child is taken in charge by a woman who at the time has ulcerated lips and mouth.

"2. This woman admits the previous existence of a venereal complaint (as likely to have been a concealed chancre as any thing else from her account), from which she had some time before recovered. She acknowledges repeated abortions and alopecia, — common enough results of constitutional syphilis.

She still has, at the time of examination, indolent ulcers of the lips and cheeks, such as are so often seen in secondary syphilis.

"3. The statement of the mother that, in spite of her earnest remonstrances, the attendant frequently kissed the child's lips.

"4. The occurrence after a few weeks' interval of superficial ulcers in the child's mouth, followed soon after by mucous papules and inflammation and excoriation of the mother's nipple.

"Such are the facts, and their value will be different with different minds. I am willing to admit that I believe the child to have contracted syphilis from the impure lips of her attendant, she being at the time affected with secondary ulcers of the mouth, the first manifestations of the disease in the child having the secondary form.

"It remains to say a few words of the treatment of the case. The mother was advised to wean the child, for fear of the consequences to herself; and, until that was accomplished, to wash the nipple with liquor sodæ chlorinatæ, after each application of the child to the breast, and to wash over the excoriated surface daily with a solution of nitrate of silver, four grains to the ounce of water. Two grains of the chlorate of potash were directed to be given to the child three times daily, the same solution of nitrate of silver to be applied once daily to the condylomata, and black wash to be kept constantly applied to them. The mother's nipple was well in five days, and at the end of two weeks the child was greatly improved. The change of diet had been any thing but prejudicial to it, and the mother expressed her astonishment at its rapid increase of flesh and strength. The papules had become very pale, and had subsided about to the level of the surrounding surface, and the mouth was nearly well. The treatment was directed to be continued until recovery should be complete."

The general bearing of what is embraced in the present chapter, it will be seen, goes directly to impeach the doctrine of Ricord, who steadfastly maintains that indurated chancre alone can produce consecutive or constitutional accidents, except in hereditary syphilis. In a legal and moral, as well as in a medical, point of view, the subject is one that demands close and impartial study. Its investigation is acknowledged to be fraught

with difficulties. It is not wholly free from the influences flowing from the schools and the high authority of brilliant names, and it is perhaps impracticable to sever it from such relations. As in many other matters not susceptible of mathematical demonstration, so in this, the evidence that convinces one man may fail to satisfy another; and thus the question seems likely to remain a mooted point at least for the present. I consider myself justified, however, in stating here that, in the judgment of a vast majority of the most eminent men in the profession, the communicability of secondary syphilis is a fact as firmly established as is the contagiousness of the poison of indurated chancre. And whatever may be the theoretical notions of the reader on the subject, he will do well, whenever he is called upon to form a diagnosis, or to give an opinion in matters of this sort, wherein the health or the character of individuals or parties is at stake, to ponder upon the facts and opinions embraced in this chapter. To ignore them would be unreasonable, unsafe and unjust.

The theory has been broached by Simon, an eminent pathologist, that the primary syphilitic poison is insoluble, and that it will not act through a continuous membrane; and that the poison of secondary syphilis, on the contrary, is soluble, and acts, as is seen in its influence on the fœtus in utero, through the unbroken walls of the bloodvessels by endosmosis, converting into its own likeness those materials of the blood with which it comes in contact; and why may not the process be the same in the adult subject?

CHAPTER XXVII.

SYPHILODERMA ERYTHEMATOSUM, OR ROSEOLA SYPHILITICA.

THE exanthematous affections, including the maculæ, roseola, erythema, and, according to some dermatologists, the ephelides, are the first manifestations of constitutional syphilis upon the skin.

Roseola syphilitica is the principal eruption we meet with, either as accompanying primary symptoms, or as a precursor of other secondary accidents which supervene at a later period, particularly the papular or tubercular affections. Roseola is the simplest form of cutaneous affection, and is not very uncommon after the existence of chancre. It usually commences without any feverish condition of the system. The patient is surprised to find the color of the skin changed to red, without having experienced any antecedent constitutional disturbance. In some instances, especially in plethoric subjects, the eruption of roseola, of lichen, etc., is ushered in by a slight febrile excitement. Sometimes, as I have elsewhere stated, a species of urticaria, or lichen, is seen upon the whole surface in consequence of the peculiar action of balsam of copaiba, or of the powder of cubebs, taken in large quantities for the cure of gonorrhœa, by persons having an extremely delicate skin, and who are accustomed to drink large quantities of wine, and to other high living. In these circumstances the man takes alarm, and, presuming the cutaneous disorder to be dependent upon the urethral discharge, and indicative of real syphilis, he imagines that a chancre must be lodged in the urethra. I have recently met with two such instances. In one, no little consternation was felt by the patient, because he apprehended that his habits and his condition would come to the knowledge of his immediate friends. But upon the discontinuance of the medicine,

the peculiar erythematous excitement of the integument entirely faded away.

In the early period of the eruption the roseate tint of the surface, retiring for a moment under the pressure of the finger, masks the characteristic coppery hue; but, as it acquires chronicity, the color diminishes only in a slight degree, and then the true nature of the affection is more distinctly declared. When it occupies the whole of the face, the abdomen, and other extensive regions, it has very much the mottled aspect of measles; and it then comes out in circular or crescentic blotches, is unaccompanied by constitutional symptoms, and *is free from itching*. Again, it will appear on one part of the skin, and, after a short period, — say from eight to ten days, — will vanish, and show itself at quite a distance in some other district; thus migrating from spot to spot, and exhibiting its dusky shade especially on the lower extremities, where the cutaneous capillaries are more readily congested than elsewhere.

Not infrequently, instead of a coppery red, the eruption assumes a yellowish red, constituting the salmon-colored skin, and, as the disease lessens, there is a moderate epidermic exfoliation. The integument will present a grayish tint, which is due to the partially-detached scales of epidermis resting on a dark red base. To the eye it seems elevated above the adjacent sound skin; but, if the fingers are passed along the surface, no elevation can be perceived. The skin feels nearly as smooth and even to the touch as in health. When the eruption terminates it leaves a peculiar dingy stain (*macula syphilitica*), which lingers for several months before it is entirely effaced. The spots present variations in the intensity of hue, from time to time, during the progress of the disease; but, however deep and well marked the discoloration may be, it always lacks that bright scarlet which belongs to simple roseola. Sometimes it assumes the annulate form. This variety, however, is uncommon. I have met with two instances, both in females, one of whom, a noted actress, was of a full, plethoric habit, and suffered several weeks from the eruption. It occupied the arms and chest principally. The mucous tissues were unaffected. The other was that of a respectable married lady, infected by her husband, and suffering from primary sores at the same time. The eruption appeared upon the face, neck, and extremities;

and several months elapsed before the woman was cured of either form of complaint.

Roseola syphilitica sometimes presents a punctate form, in which the follicular congeries of capillary vessels is congested. The sub-occipital and other cervical lymphatic glands are usually swollen in cases where this cutaneous affection is spread over a large extent of surface. The sudoriferous pores are also prominent, and the sebaceous follicles obstructed by a dry sordes, consisting mostly of epidermic particles. The skin is in an unperspirable state, or, if covered with insensible perspiration, it exhales a peculiarly disagreeable odor. This latter idea is denied by some writers, but I think it is founded in truth.

Diagnosis. — From the preceding description, which embraces the leading features of true roseola syphilitica, it would seem that the diagnosis cannot be surrounded by any great difficulty; and yet well-marked examples of the malady have been mistaken, in the early stages, for rubeola. An instance of the kind occurred within my observation not long since. The person was a married woman, who, as well as her husband, denied ever having had any venereal symptoms. After the eruption had existed for several weeks, Dr. Salter and myself were called in consultation. The posterior cervical glands were enlarged; the mucous membrane of the mouth was inflamed, and upon it were several small ulcerated patches; there was great constitutional debility. Notwithstanding the parties denied the existence of primary specific disorder, either past or present, the cutaneous affection, which covered nearly the entire surface, was now sufficiently distinct in character not to be confounded with any other exanthem, especially when considered in connection with the other concomitant circumstances. The patient had never before been troubled in this manner. Several months passed before her recovery.

In rubeola the abnormal conditions are of an acute form from the commencement of the attack, and reach their acme rapidly. Although the efflorescence of the integument in measles and in roseola syphilitica may present a similar aspect to the eye, it should be remembered that in the latter disease — the coryza — the profuse serous discharge from the eyes, the

cough, the sneezing, the quick pulse, and the alternation of chills and fever, which exist in measles, are wanting.

TREATMENT. — If any febrile symptoms are present, which is seldom the fact, a mild antiphlogistic treatment, pursued for a few days, will subdue them. The simple warm bath should be daily administered, or a bath containing sulphuret of potash in the proportion of two ounces to thirty gallons of water. The therapeutic benefit which can be derived from warm bathing and warm-water douches, as powerful means of stimulating the cutaneous vessels to healthy action, will in the generality of cases be manifest in a satisfactory manner. The occasional use of soap with the bath will be serviceable. In many instances, where this simple variety of disease is present, minute pellets of hardened epidermis and sebaceous matter form at the orifices of the sudoriferous tubes, and impart to the surface a peculiar roughness. This dry scurf has a constant tendency to accumulate; and to obviate this, bathing, with liberal friction, should be faithfully attended to. The gelatine bath and bran bath are sometimes recommended. Of course there is no objection to be urged against their employment if the patient choose to try them; but I am not aware that they possess any special virtues not inherent in the other modes of purifying and exciting the external surface.

Moderate saline evacuants, combined with tonics, and a generous diet, exposure to a pure atmosphere, and regularity in the habits of the patient, is all that will be required at this crisis by way of constitutional treatment.

CHAPTER XXVIII.

PAPULAR ERUPTIONS.

SYPHILITIC papules exhibit themselves under the guise of two principal forms. In the one, they are closely associated together in groups, and assume a semilunar or crescentic arrangement, with intervening healthy spaces, and the spots or patches look not unlike so many dusky-red, fleecy clouds, in miniature. The other mode in which the papules appear consists in a widely disseminated arrangement. In the latter, I think it is correct to state that the individual papules are larger than when developed in crowded clusters. The usual size is, at first, about that of a common pin's head. Whatever their form, or size, or mode of distribution may be, however, they are endued with the tawny or coppery red color which is so generally, I cannot say always, characteristic of venereal eruptions. At no period are they pruriginous, even when they terminate, as they sometimes do, in desquamation of the epidermis which covers them; and they leave behind them, for a very long period, stains of a brown coppery color, or the hue of the brown faded leaf, as the remembrancer of their former site. Sometimes syphilitic papules spring up in great abundance upon the forehead, usually in clusters of ten or twenty; at other times they are quite isolated. When thus developed, they bear a close resemblance to acne indurata, and have been honored with the dignified sobriquet of *corona veneris*. They create no constitutional disturbance, unless they burst forth suddenly as an acute affection, which is not often the fact. When they do thus appear, however, the febrile condition is well pronounced. There is increased temperature of the surface, which is very rough, and in an unperspirable state; the pulse is accelerated, and the tongue parched and coated. But the moment the papular development is complete, the constitutional struggle subsides, and the economy seems to be relieved, or entirely at rest.

Syphilitic Lichèn.

The chronic variety is extremely prone to make successive invasions. From the time one crop of papules has been subdued, not many months will elapse before another will be very likely to show itself, unless the treatment has been followed up without interruption or abatement for several weeks after the skin has been restored to a normal condition. In regard to the obstinacy of the attacks, something depends upon the period that has intervened between the primary affection and the constitutional symptoms. If the former have been recently cured, the eruption will prove less intractable than in those cases where a long interval has passed between the primary and consecutive disease. The treatment pursued, the state of the system, and the habits of the patient, are likewise so many contingent circumstances which will more or less influence the persistence of the eruption; so that nothing very definite can be predicated on this point.

In passing the finger over the affected portions of skin, the papules will feel perfectly solid, like so many shot, or like millet seeds. They are known as *lichen*. Where they are arranged in clusters of various dimensions, they are denominated *lichen corymbosus;* where they appear separately, they are termed *lichen disseminatus*. Professor Wilson makes still other varieties, according to the particular mode of development; but these subdivisions I do not regard as very important in this connection, and for the sake of avoiding confusion I shall not introduce them here. [Plate II.]

Diagnosis. — The erythematous blush with which the mucous membrane is suffused, and which is often the foreshadowing of the ulcers that invade it in constitutional syphilis, is associated with the papular development now under consideration. The pendulous veil of the palate, the uvula and fauces generally, including the tonsils, are usually inflamed. The conjunctiva is likewise deeply reddened, and the lids more or less tumefied. The breath is disgustingly fœtid, and the lingual papillæ are elongated and turgid. These symptoms are available as so many well-known signs or aids which we can bring to our assistance when we are about to form a diagnosis as to the character of the complaint; and it would seem that the abnormal condition of the several parts of the mouth and mucous

membrane of the eyelids, joined to the phenomena spread out upon the superficies of the trunk and limbs, could not fail to conduct the mind of the medical observer aright; for these appearances do not exist in any non-specific disease. The practitioner should never neglect to make a careful examination of the mouth and throat before coming to a decision in regard to the nature of the cutaneous disorder.

By an easy transition the elevated papules of lichen, in each of the varieties which it presents, may pass into the tubercular form, which is one of the most common and important of all the syphilodermata. Very often the papules are seen in company with pustules, tubercles, or squamæ; or the patient may present himself with the types of nearly all the syphilitic eruptions upon him. The lichen is frequently associated with iritis, nocturnal pains in the large joints, or with some other manifestations of constitutional syphilis. Occasionally, it arises as an accompaniment of the primary symptoms, and, in such cases, is apt to awaken a febrile disturbance for a few days. Sometimes it attacks the prepuce of the male, or the vulva, orifice of the urethra, or clitoris of the female; the external surface of the labia is also frequently dotted over with this eruption. When seated on the organs of generation, it will sometimes excite considerable irritation and soreness of the parts. In some instances the papules inflame, and minute ulcerations appear upon their apices, which soon become covered with dry, delicate scabs or incrustations. When developed upon the extremities, or upon the inferior portion of the abdomen, this eruption has been erroneously supposed to be a syphilitic form of itch; hence the name of *scabies venerea*, mentioned by some of the older writers. Although there is no such malady as venereal itch, we occasionally meet with the vesicles of simple eczema mingled with the papules of syphilitic lichen.

The lichenoid papules are more frequently present in the adult than any other form of syphilitic disease. In the infant they are not often observed. When the affection is developed upon the face, the innumerable pimples impart to the countenance a dark, cupreous, shining and ludicrous appearance. When it is confined chiefly to this locality, it is often exceedingly difficult to ascertain its real character, so far as our dependence for proof is placed upon the eruption itself; and

the most practised eye will be unable to identify the disease as syphilitic or otherwise. Especially will this be true if it have passed into the squamous condition. The shrewdest practitioners have fallen into error in their diagnosis. So difficult is it to arrive at the truth, that Acton does not place any confidence in evidence derived from the state of the skin. He and several other surgeons once made a mistake, in consequence of which he has inserted the following sentence in his work: "This case led me to trust alone to concomitant symptoms, and I determined never to characterize a papular eruption as syphilitic unless it was attended with other well-marked symptoms, such as psoriasis palmaris, sore throat, or mucous tubercles." The same intelligent writer relates an instance in which his distinguished master, Ricord himself, came to a wrong conclusion, as was proved by the subsequent history of the symptoms, and by the treatment of the patient. At the time Ricord examined him, he had, along with other suspicious symptoms, psoriasis palmaris, etc.; but, because no evidence of a former chancre could be obtained, Ricord, true to his long-cherished but fallacious theory, pronounced that the disease was not syphilitic. Acton treated it successfully with mercury, and regarded it as venereal.

After the healing of a chancre, the syphilitic taint will remain in a latent state for many years, without disturbing the healthy condition of the system in any way, and then manifest its presence and its specific action in a very feeble manner upon some portion of the skin, usually the face. It commences with a small patch of hard, dull-red papulæ, located upon one cheek, or upon one of the temples, where it lingers for many weeks, perhaps, without betraying any disposition to spread, some of the papules gradually passing into a pustular state, and some of them being covered with squamæ, without assuming the usual pustular character. Otherwise, the entire surface looks perfectly healthy. This insignificant disc, perhaps not an inch in diameter, may constitute the only external manifestation of the expulsive effort of nature to relieve herself of the "peccant humor," which she has, until now, retained within her precincts with impunity. The syphilitic features of the eruption are generally well developed in these minor patches, amid the transitions which they undergo. During the continuance of

this trifling cutaneous affection, a morbid state of the buccal mucous membrane very commonly coëxists. On examination, the fauces will be found swollen and of a purplish hue, but perhaps giving the individual no trouble. The medical attendant, however, will need a reliable history to aid him in the diagnosis. These cases occur with considerable frequency. The therapeutic principles, upon which the most successful treatment is based, are abundantly simple. Every day's experience, as realized both in public and private practice, bears testimony to this.

If the lichen be acute, and appear as an accompaniment of primary symptoms, it can generally be ameliorated or entirely subdued by means of plain warm-water baths daily administered; or what is termed the emollient bath may be used in its stead. This is prepared by pouring four quarts of boiling water upon two quarts of wheat bran, and, after allowing it to stand for half an hour, let it be added to the bath. In the acute variety of the papular syphilide this will be found particularly beneficial in allaying any irritability of the skin or any inflammatory action, either local or constitutional; will rarely fail to mitigate the eruption, and to keep at bay any tendency to its increase. The sulphureo-gelatinous bath is also valuable. It will be found preferable to the artificial Baréges bath, which is liable to occasion too great excitement in the cutaneous vessels.

The sulphureo-gelatinous bath is thus prepared: —

℞. Potassii Sulphureti, ... ℥ ij.
Aquæ, ... Cong. xxx.

Add to this solution: —

Ichthyocollæ, ... lb. ij.
Aquæ Bullientis Solutæ, ... lb. x. M.

The potash had better be omitted for the first few times, until the turgid condition of the capillaries has diminished, after which it can be advantageously added. One or the other of these baths, according to circumstances, should be employed as auxiliary to other antiphlogistic measures.

In the acute variety of lichen, there is usually considerable

derangement in the chylopoietic viscera; and this state of things must be rectified, otherwise the skin will remain unimproved. The Congress Spring water, under these circumstances, frequently constitutes a valuable beverage for the patient. It acts as an efficient evacuant on the kidneys or bowels, or both. I always prescribe it, if the individual can afford the expense which its use involves. It is a capital tonic to the digestive apparatus, while it is sure, also, to act with energy and safety on the emunctory system.*

The liquor ammoniæ acetatis can likewise be employed to advantage. It is an excellent diaphoretic; and, prescribed to the amount of two or three drachms in a gill of warm, sweetened barley-water, three or four times in the day, will prove grateful to the patient, and will allay any existing febrile action. Quietude and a bland diet should be enjoined. These simple measures comprise about all the therapeutics which the case will require at this stage, and will constitute the best preparatory steps to any subsequent treatment which the condition of the individual may demand.

Should the eruption affect a *chronic* type, the sulphuret of potash bath will be found beneficial, in conjunction with the moderate internal employment of mercury. When the papules occupy the face, the patient is always anxious to be rid of them from that locality, and he will not be content unless some topical means are prescribed for this purpose. The following ointment may be employed at bedtime: —

℞. Hydrargyri Deuto-Iodidi, ... gr. j.
Pulveris Camphoræ, ... gr. viij.
Unguenti Rosarum, ... ʒ iss. M.

A small quantity is to be rubbed upon the diseased patches.

* The following are the results obtained from an analysis of the Congress water, as reported by Sir Humphrey Davy and Professor Faraday: —

℞.	Chloride of Sodium, ...	385.44 grs.
	Hydriodate of Soda, ...	4.02 "
	Carbonate of Lime, ...	116.00 "
	Carbonate of Magnesia, ...	56.80 "
	Oxide of Iron, ...	64 "
	Carbonate of Soda, ...	56 "
	Hydro Bromate of Potash, a trace, ...	00 "
	Solid Contents in a gallon, ...	563.46 "

If it produce much smarting, the proportion of the deutoiodide must be lessened, and its application repeated every other night only. A moderately stimulating impression on the skin is all that is requisite with a view to accomplish the absorption of the papules. The iodide of sulphur ointment is sometimes an effective local remedy in these cases.

℞ Sulphuris Iodidi, ... ʒj.
Pulveris Camphoræ, ... gr. vj.
Olei Bergamotæ, ...
" Lavandulæ, āā, ... gtt. v.
Unguenti Rosarum, ... ℥j. M.

This preparation can be rubbed upon the papules every night. A drachm of the iodide of sulphur to two ounces of unguent may be prescribed, if it is not to be employed upon the face.

The tar-ointment has been found beneficial. Mr. Acton advises that the patient rub the affected parts daily with it, and recommends that he do not change his linen. By so doing he lives in an atmosphere of tar. In hospital practice, such a course can be pursued without difficulty, but with private patients it would not be convenient.

Where the pimples show a disposition to soften and to yield a moderate discharge, or to degenerate into small ulcers, I have generally found the subjoined formula answer the desired purpose. Should the disease be situated upon the face, the application can be made without annoyance to the olfactories; whereas the iodide of sulphur and the tar-ointment are not agreeable.

℞ Olei Bergamotæ, ... gtt. v.
Plumbi Acetatis, ... ʒj.
Unguenti Hydrargyri Nitratis, ... ℥ ss.
" Cetacei, ... ℥j. M.

Fumigations. — If the eruption assume an obstinate disposition, cinnabar fumigations will be of service. Mr. Langston Parker has had large experience in the use of several kinds of mercurial fumigations, in the management of syphilitic affections, both primary and secondary; and his testimony in

their favor is entitled to consideration. His plan is to have the patient seated, naked, in a chair or box, with the head and face free, as in a common sulphur-fume bath. The mercury is volatilized from a tin plate by the heat of a large spirit lamp; at the same time a current of steam is conducted into the apparatus. The person remains in the box twenty or thirty minutes. The bath may be repeated every second or third day. The treatment is not attended with any accidents, such as diarrhœa or salivation, and is as certain and as little hurtful as any remedial course can possibly be. Even in primary phagedænic sores Mr. Parker does not hesitate to employ these fumigations. In regard to the merits of his practice with mercurial fumigations, in ordinary instances of secondary affections, there can be no doubt; but in cases of phagedænic ulcers, at any stage of the venereal disease, I do not incline to advocate the administration of mercury in any form, manner, or quantity To me it seems to be a matter of doubt how the salutary influence of moist mercurial vapor is produced. Does the good effect ensue in virtue of the absorption of the exceedingly minute portion of mercury which is taken into the circulation through the cutaneous vessels, or is the benefit of the bath due to the amount of perspiration which the process excites? Of the entire volume of mercurial vapor generated and diffused through the whole area of the box which the individual is supposed to occupy, but a fractional part is deposited on his person; and it appears not improbable that the aqueous vapor and the fluid of perspiration must necessarily tend to hinder the mercurial substance from gaining free access to the interior of the system. And therefore the query suggests itself, is it the mineral agent that goes into the animal economy, or the venereal poison that goes out through the medium of cutaneous exhalation, that confers the benefit? I am led to these remarks because I have witnessed gratifying results from the protracted use of sulphur-fume baths, combined with aqueous vapor, or with dry heat, at a temperature of one hundred to one hundred and ten degrees. The simple, unmedicated vapor-bath, administered to persons suffering not only from papular but from various other forms of cutaneous eruptions, exerts a highly beneficial influence. The stimulating and tonic action of the vapor of sulphur, combined with heat and moisture, agrees, I am certain,

with indolent sores and ulcerated surfaces generally, whether venereal or not; and the use of such baths can hardly ever be ill-timed, provided the individual has sufficient vigor to go through the process without fatigue. In purely papular or squamous affections, the remedial agency of the bath is scarcely less remarkable. But to secure its best effects, a high, moist temperature is requisite, in order to induce a copious perspiration for an hour or two every day, or every other day, as the physical condition of the patient may be. If, in the administration of the bath, any circumstance should transpire to prevent free perspiration, little or no benefit will be realized from its employment, however it may be medicated, whether with sulphur or any mercurial preparation. In hundreds of instances I have tested the value of the sulphur-fume bath and the simple vapor-bath. As curative means of decided efficacy, when employed as auxiliary to internal remedies, they can be administered in nearly all cases where the patient is not laboring under any acute or febrile symptoms. The practitioner will find them a great help in restoring and maintaining the healthy functions of the whole cutaneous surface, and thus conducing to the cure of the local disease. The same is true in regard to the artificial sulphureous water-bath, with gelatine dissolved in it. Cold sea-bathing, in relation to which patients often make inquiries, is seldom admissible. Warm sea-baths, on the contrary, generally promote the improvement of the syphilitic invalid.

I am inclined to the belief that nearly or quite all the benefits attributed to mercurial fumigations can, in a majority of cases, be realized from the use of either of the other baths that have been alluded to. Before dismissing this subject, I must, in justice to Mr. Parker, insert a few particulars touching the method of employing the mercurial vapor-baths, to which I have no objections to offer. If the circumstances of the patient will permit their use, they can be prescribed as a safe means of ameliorating or curing various consecutive symptoms. "The patient is placed on a chair, and covered with an oiled cloth, lined with flannel, which is supported with a proper framework. Under the chair are placed a copper bath, containing water, and a metal plate, on which is put from one to three drachms of the bi-sulphuret of mercury, or the same quantity of the gray oxide

or the binoxide. Under each of these, a spirit lamp. The patient is thus exposed to the influence of three agents,—heated air, common steam, and the vapor of mercury,— which is thus applied to the whole surface of the body in a moist state. After the patient has remained in the bath from five to ten minutes, perspiration generally commences, and by the end of twenty or thirty minutes, beyond which I do not prolong the bath, it is generally excessive. The lamps are now removed, and the temperature gradually allowed to sink. When the patient has become moderately cool, the coverings are removed, and the body rubbed dry; the patient is suffered to repose in an arm-chair for a short time, during which he drinks a cup of warm decoction of guaiacum and sarsaparilla."

The use of the dilute nitric acid will be attended with favorable effects. In all stages of the complaint it will be found serviceable, but particularly so in the chronic; and it may be administered for several weeks in succession, according to the annexed formula: —

℞. Acidi Nitrici Diluti, ... gtt. xxx.
Syrupi Aurantii, ... ℥ ij.
Decoctionis Saponariæ, ... ℥ xij.

M. The above is sufficient for one day.

In the syphilitic ward of the Royal Free Hospital, London, Dr. Marsden has, for more than twenty years, treated secondary eruptions by the administration of stomachic and tonic remedies and good diet, conjoined with the following: —

℞. Antimonii Sulphureti,
Potassæ Nitratis, āā, ... ʒ v.
Sulphuris Sublimati, ... ℥ iiss. M.

Of this powder, the dose is thirty-five grains, night and morning, in syrup or molasses. The London Lancet* states that this plan of treatment has been pursued in thousands of cases at the above charity, and the most gratifying results have been obtained. The medicine is to be persevered in for some weeks after the cutaneous affection has died away. I have made only

*Of June 27, 1857.

one fair trial with this remedy. The patient was a married woman, twenty-nine years old. She had had syphilitic lichen on the face, body, and extremities, seven weeks before she applied to me. The above powder was the only remedy prescribed. The eruption disappeared in six weeks, and did not return. The powder was continued in reduced quantities for six weeks afterwards. The patient resided in the country at the time, lived well, and had the benefit of wholesome air. Her general health had not suffered from syphilis.

In cases of peculiar obstinacy, which resist the action of the foregoing medicines, the bichloride of mercury, to the amount of one-tenth of a grain twice a day, should be prescribed in conjunction with tonics.

For the purpose of presenting the mode of treatment more in detail, and at the same time bringing forward an instance to show that the same venereal eruption may have a variety of color in different regions, I transcribe from my note-book the following case. It will be seen that it offers one or two other points of interest; the first is, the lightness of the primary disease. The patient had chancre, but no inguinal enlargement that ever attracted his attention. In the second place, there was an uncommonly long interval between the cure of the original accident and the manifestation of constitutional infection; and, lastly, the total absence of the copper color upon the face, and its development upon the lower extremities.

October 26. — N. H., a young medical gentleman, consulted me for an eruption, which appeared upon the limbs and elsewhere, about eight months ago. It came upon the legs first. The malady on the face is now a well-defined lichen; is not blended with any other affection, nor is it modified by any local applications, for none have been used. The face has the appearance of being slightly freckled; that is, very small, yellow spots, with their outlines not well marked, are scattered over the forehead and cheeks, where the papules are most abundant. The pimples about the nose are farther advanced than the rest, and are covered upon the summit with an epidermic scale. They are all distinct, and are elevated very perceptibly above the adjacent integument, but are destitute of the coppery hue. The palms of the hands are dotted over with the same eruption. Here the papules appeared subsequently to those on the face.

Those on the palms are larger than the others; are perfectly hard under the epidermis, which is somewhat broken, and every five or six days is cast off in small, micaceous exfoliations. The integument here is also free from any coppery tinge. The hands present an appearance similar to that seen in the commencement of psoriasis palmaris. The arms are slightly implicated; but neither is there here any cupreous hue of the surface. The legs were next examined. On these the disease first displayed itself, and the general aspect of the integument here was decidedly of that dirty, boiled-ham color, which, when present, is so justly regarded as almost unequivocal evidence that its peculiarity is due to a specific cause. Along the belly of the gastrocnemii muscles, and farther downwards, were some eight or ten round, deep ulcerations, which had penetrated through the derma and cellular tissue; some of them were covered with thick brown crusts (ecthyma), below which, on pressure, a small deposit of fluid could be detected. Other pustules or sores were less protected by scabs, and yielded a foul sanious discharge, perhaps some half-dozen drops from each in the course of the day. None of the sores were larger than a dime, and were all unprotected by any dressing or covering except the trowsers. They had been in nearly the same condition for several months; so said the patient. Some of the papules on the legs retained their original, frank, lichenoid character; but the greater portion of them had grown into good-sized tubercles, or had advanced still farther and had become *tubercula ulcerantia*. The young man was pale and thin; he stated that his flesh and strength had of late greatly diminished; he could walk but a short distance without fatigue and being obliged to rest; he complained of dyspepsia and constipation; he consumed large quantities of tobacco both in chewing and smoking; sat up late at night, and rose at a corresponding late hour in the morning. He took but two meals during the twenty-four hours. There was an unnatural sound in his voice, as if the calibre of the air-passages were obstructed by tenacious mucus, which gave a hoarse râle in the upper part of the trachea when he spoke. The fauces were swollen and deeply reddened. The patient remarked that he had for several months been troubled with what he supposed was bronchitis. The right testicle was enlarged

and at times painful. I had no particular acquaintance with this individual, and knew nothing of his previous habits; but from the evidence presented, I could not entertain any doubt as regarded the specific nature of his symptoms. Our interview was here interrupted, and I did not see him again until

November 7th. — N. H. called and desired my opinion of his case. In return, he was requested to give his own. He replied that he considered his complaint to be *scrofula*. I stated that my belief was that he had constitutional syphilis. He remarked that this was impossible; but as I adhered to my position, he acknowledged that six years previously he had a small chancre, which was cured in a few days, and that he had not been ill for a day from the time it healed to the time when the eruption appeared upon his legs. He took no mercury for the chancre. He was surprised at my diagnosis, and it was some time before he acquiesced in it; he however yielded with praiseworthy accommodation of mind. He had great confidence in the power of mercury to cure all forms of venereal symptoms, and requested that it might constitute a leading feature in the remedial administration, with which the treatment should commence. To this I saw no objection, and the following course was adopted: —

℞. Hydrargyri Chloridi Corrosivi, ...
Ammoniæ Muriatis, āā, ... gr. viij.
M. ft. pil. No. lxiv.

Dose. — One pill morning and evening, directly after eating.

Of the solution of tartrate of iron and potassium, according to the formula already given, he took two drachms three times a day; a warm bath every other night.

As an external application to the face, he used, partly at his own suggestion, the following preparation: —

℞. Sulphuris Iodidi, ... ʒij.
Pulveris Camphoræ, ... gr. v.
Olei Bergamotæ, ... gtt. vj.
Unguenti Rosarum, ... ʒj. M.

The patient was advised to revolutionize his habits; that is, to retire to bed at a more seasonable hour; to rise early; to take three meals a day, instead of two, and at regular hours,

like other people; to have a generous diet, and to abstain from tobacco: all which he promised to do.

The above ferro-mercurial course was continued for about three months. In two weeks an amendment in the constitutional condition of the young man was quite apparent. He had a more vigorous appetite and better digestion; his strength improved, and he began to gain in flesh. The cutaneous disease did not change for the better until the third week from the commencement of the treatment. On two or three occasions the gums became slightly tender. The pills were accordingly intermitted for five or six days, and then resumed. He continued his avocations most of the time as usual. Fortunately, no appearance of the skin upon the face or hands betrayed any specific coloration arising from the disease. The eruption on the palms disappeared first, then that on the arms, and lastly that on the lower limbs. On the latter the characteristic copper-colored stains remained for a long period, but finally faded away satisfactorily. The unavoidable exposure of the patient to all states of weather during the winter months was calculated to retard the removal of the papules and tubercles from the face; and it was not until the mild weather of the following spring, that the integument of this unprotected region was restored to its normal condition. The orchitis was not very troublesome. It would continue for a week or two, and then subside under the influence of moderate doses of the iodide of potassium, rest, and a suspensory bandage.

A few words more relative to topical applications to syphilitic lichenoid eruptions. If they assume a chronic character, I generally select the iodide of sulphur ointment, as answering all the purposes to be gained by the employment of greasy substances, — a class of remedies, which we are to avoid if we can, but which we are glad on some occasions to call to our aid.

Where the eruption is slight, the subsulphate of mercury will frequently answer every desirable end, and will be more agreeable to the patient than the iodide of sulphur.

℞. Hydrargyri Sulphatis Flavi, ... ℈j.
Unguenti Rosarum, ... ʒj. M.

While applying any of the ointments, the utmost care should

be observed to keep the diseased surface in a cleanly state by the use of warm bran-water every day before the inunction.

Stimulating lotions will frequently exert a favorable influence upon the papules, if applied in the early stage and before their transition into the larger prominences, which are, strictly speaking, tubercular. The annexed prescription is one of the best: —

℞. Hydrargyri Chloridi Corrosivi, ... gr. xij.
Aquæ Colognæ, ...
Spiritûs Rectificati, āā, ... ℥j.
Aquæ Fontanæ, ... ℥viij. M.

A small quantity is to be dabbed upon the papules three or four times in the day.

The nitro-muriatic acid, properly diluted, makes a very excellent application. It will be borne, without complaint, of the following strength, and will in many instances promote the dispersion of the papules: —

℞. Acidi Nitrici, ...
" Muriatici, āā, ... ℥j.
Aquæ Fontanæ, ... ℥xvj. M.

Lotion. — To be used two or three times daily.

The ointments and lotions above mentioned are all about on a par with each other as to the resolvent power which they display; and if the eruption should occupy any part of the face, the patient will not be content unless some of them are employed.

CHAPTER XXIX.

SQUAMOUS SYPHILITIC ERUPTIONS.

THESE constitute a very common variety of venereal affections. They are met with in patients, in whom the existence of any such taint would scarcely be suspected. In young subjects they are sometimes seen as an ignoble inheritance. Mr. Hunt, a distinguished dermatologist of London, states it as his opinion that a large portion of squamous diseases belongs to this special category. The non-mercurial treatment of the primary syphilitic lesion, which was somewhat the fashion of the times a few years ago — more so, at least, than at the present day — has probably multiplied the cases of hereditary syphilis to an extent of which practitioners generally are not aware. The skin of young children seems to be more frequently the play-ground upon which this malady delights to revel in its secondary form, rather than to dwell among the other tissues. But the squamous affections are also seen in persons of maturer growth; and the great difficulty is to distinguish between those that are venereal and those that are not.

The most salient features of the squamous affection, whether we call it syphilitic psoriasis or syphilitic lepra, are the formation of dry, thin, dark-grayish laminæ or scales, reposing upon circular patches of dingy red skin. The scales differ entirely from the white, silvery hue of lepra vulgaris or ordinary psoriasis. The diseased discs are considerably raised and isolated, rather than confluent, and of a copper color. This is the rule in relation to color, although, as in other stages and forms of venereal eruptions, we must admit that there are exceptions to this law, in its application to the squamous eruptions.

Mr. Green gives a good description of this complaint in the following quotation: "The *squamous* forms of syphilide are generally so perfectly characterized by the coppery and sometimes nearly black color of the eruption, by the soft, smooth

Annular Crustaceous Eruption.

man was married to a healthy woman, who had suffered two miscarriages. He was of diminutive stature, emaciated and feeble; could scarcely walk a hundred rods; his appetite was miserable; he had much trouble from constipation; his tongue was coated; the pulse one hundred; and there was extreme pallor of countenance. There were several squamous blotches on the face, varying in size from that of a ten-cent piece to twice that bigness, and slightly elevated above the adjacent sound skin. Some of them had healed from the centre and presented an annulate figure. Large portions of integument covering the body and extremities were occupied by the eruption in different stages of development. The most singular and interesting specimens consisted of annular, tuberculo-crustaceous patches, of various dimensions. One of these, situated on the right fore-arm, embraced within its circuit nearly a third part of the integument of its dorsal aspect. It was produced by the union of numerous groups of tubercles, which had partially softened on their summits, and yielded a very scanty purulent exudation, — the latter having desiccated into a thick, dark incrustation. The area included within the ring had all formerly been the seat of the same deranged action, which, as the eruption healed, had a centrifugal tendency; that is, as it got well in the central part, new tubercles would appear, just outside the borders of the cicatrix, which widened in every direction in nearly equal ratio, and which now presented a reddish brown or vinous tint. (Plate III.)

On the back were five or six morbid patches similar to the one represented in the plate. The friction of the clothing and that arising from locomotion created in some of the diseased localities considerable irritation and discomfort, with a copious oozing of sanio-purulent matter. On the right buttock there was one large patch, which interfered with any attempt at walking and with the usual sitting posture. The legs and arms were thickly covered with eruption, which, in most instances, took the annulate form, and varied in size from half an inch to thrice that diameter, squamous in some spots, in others tuberculo-crustaceous. On the entire surface there were some seventy or eighty of these sores. They produced no itching, but gave rise to a most offensive exhalation. The patient had neglected to bathe for a long time. The sebaceous apparatus

was in a state of atrophy for want of nutrition; the whole of the integument not actually implicated in the complaint was covered with dry, rough epidermis and other accumulated exuviæ. At times, during inclement winter weather, there had been sore throat to a moderate degree. The patient was extremely feeble and desponding, and was a spectacle of great wretchedness. He denied ever having had primary syphilis. His father remarked that he had consulted some of the most eminent surgeons and physicians in the United States, both at the North and the South, and that the subject had often been discussed, and that no medical man who had examined his son regarded his case as venereal; an idea which the father seemed to endorse. I obtained a private interview on the following day with the son. On this occasion he acknowledged, after a few evasions, that he contracted a gonorrhœa in New York two years previous to the appearance of the cutaneous affection. The case was now relieved of the thin veil that overhung it. The chain of evidence was strong and complete, and my judgment and my course were unembarrassed. The father, who was waiting in another apartment, was invited into the consulting room. I communicated to the parties my opinion that the malady was constitutional syphilis, having its origin, probably, in urethral chancre. Great dissatisfaction was manifested by father and son, and the written opinion of the eminent surgeon above referred to was presented as antagonistic to mine. I replied that the case was to me as clear as the light of day, and that no names or documents would induce me to change my position. After wasting about two hours in fruitless debate, it was agreed that Dr. Dale and Dr. J. Mason Warren should be called in consultation; and that, if their diagnosis harmonized with mine, the decision should be considered correct and final, and that I should have the professional care of the patient. The first part of this arrangement was consummated in a few hours; and after a thorough examination of the young man, the two consulting gentlemen corroborated my opinion. Next morning the father and son took the cars for the purpose of again visiting the aforesaid eminent surgeon, and of reporting to him our views in regard to the case.

In communicating our decision to this surgeon, the patient, in accordance with my advice, acknowledged that he had for-

merly been exposed to the infection of primary syphilis, etc. The surgeon, perceiving at once the whole merits of the question, exclaimed, "Primary syphilis! primary syphilis! you did not tell me that; the Boston doctors are right." The last remains of the cobweb were now swept from the father's mind. He returned to Boston, and committed the son to my care, and a course of treatment was at once inaugurated. It embraced a period of two years, at the expiration of which it was brought to a happy termination. A brief *resumé* of what was done is all that I propose to give. For a long time tonics constituted the basis of nearly all the internal remedies; and prominent among these was the potassio-tartrate of iron, at the rate of one drachm *per diem*, in an infusion of quassia. The appetite was soon quickened, the digestion improved, and an increase of flesh became apparent in a few weeks. By careful attention to diet, particularly the free use of fruits, such as apples, pears, oranges, and grapes, the normal function of the bowels was gradually restored, and was easily maintained. By the use of the sponge and slightly chlorinated water, the faithful wife kept the poor victim in a cleanly condition, until he was able to endure warm-water baths, which were sometimes impregnated with sulphuret of potash, and sometimes unmedicated. As soon as he had gained a fair amount of strength, the pulse having acquired considerable volume, and the capillary circulation being well established, as shown by warmth of the extremities, the use of the bichloride of mercury, in pills, was added as auxiliary to the ferruginous solution. The daily quantity of the oxymuriate ranged from one-eighth to one-fourth of a grain, care being taken not to disturb the normal condition of the mucous membrane or salivary apparatus. The time for the continuous employment of the last remedy varied from four to six weeks, generally followed by an intermission of two or three weeks. Given in this guarded manner, it appeared to act as a valuable therapeutic adjunct to the other constitutional means, and not the slightest inconvenience was experienced from it. From the moment the treatment was instituted to its close no retrocession of symptoms took place. The progress towards a cure was indeed slow; but it held the even tenor of its way, until all evidence of the syphilitic contamination disappeared, so far as relates to actual symptoms. The patient,

who, from the beginning, carried out the prescribed course in its minutest details, has enjoyed comfortable health for several years.

Besides the remedies above mentioned, other suitable medicines were employed, such as dilute nitric acid, large libations of the compound decoction of sarsaparilla, decoction of yellow dock-root, Congress Spring water *at the fountain*, the tincture of the muriate of iron, the citrate of iron and quinine, cod-liver oil, acetate of ammonia, and small quantities of the iodide of potassium, together with the use of various topical appliances, already sufficiently alluded to in previous pages. Nor was the benefit resulting from a salubrious atmosphere and agreeable exercise forgotten. The patient took board a short distance from the city, and, as soon and as fast as his strength would permit, he was daily on the wing, making short excursions with his friends, visiting fashionable watering-places and other notable localities.

In many cases the syphilodermata have their distinctive characters well marked; and the eye that is familiar with them can recognize their signification almost as readily as one can tell the hour of the day by looking at the face of a watch. On the contrary, there are other cases, in which the eye is not sufficient. The mind needs to consider the *ensemble* of the symptoms collectively, whether revealed to the organ of vision, or depending upon the general condition of the patient, or gathered from his past history. All the sources of information should be explored. The entire facts in the case are as essential to the practitioner as they are to a judge in deciding a matter of jurisprudence.

When we are unable, with all the assistance we can command, to arrive at a clear and satisfactory diagnosis, we can sometimes resort to mercury as a test. The ground on which this recommendation rests is this: if the eruption be venereal, the medicine will be likely to relieve it; if not venereal, the patient will be liable to get worse. The medical attendant may be so situated with respect to the individual that he cannot exchange words upon the topic with safety or propriety. Such circumstances do now and then happen. Upon the subject of syphilis the physician is bound to keep silence. In suspicious

instances, the usual avenues to the truth being unavailable, mercury may be properly summoned as a witness, provided the general health and the condition of the person will warrant the experiment, and provided, also, that other means have been tried to no good purpose. On the other hand, it must be acknowledged that cases exist in which the mineral in question, even if administered till the system be absolutely saturated with it, would afford no clew to the real character of the complaint. It is not every syphilitic subject who can tolerate the action of mercury in any form or quantity.

The syphilitic pimple, which, in the elementary form, is a papule or tubercle, may terminate in a squamous disease, exhibiting repeated desquamation of the epiderma, in thin, flimsy scales. Sometimes the syphilitic spots are evolved in the form of squamæ at the beginning of their appearance. They occasionally show a disposition to yield a very little purulent discharge; but I am inclined to believe that in a majority of instances, regarded as squamous, the lichenoid papule or the tubercle precedes the squama, the latter condition being simply the secondary stage of the eruption.

The true squamous blotches belong either to psoriasis or lepra. They present themselves as circular discs, perceptibly elevated above the adjacent skin, are of different sizes, from the fourth of an inch to an inch in diameter, rarely accompanied by any moisture from the morbid surface, and causing no inconvenience from pruritus; differing in this last particular from ordinary, non-specific eruptions of the same order, which are always a source of irritation and annoyance to the individual, even when only a very limited portion of skin is implicated.

The terms, syphilitic psoriasis and syphilitic lepra, as at present understood by dermatologists, are applied to one and the same disease. They differ, it is true, in the form of the patches which they exhibit, but not otherwise. The particular portions most commonly occupied are the scalp, the anterior surface of the body, the palms of the hands, and the soles of the feet. When the two last named are involved in these chronic, squamous inflammations of the derma, the scales are remarkably thick, corneous, dry, and brittle. The syphilitic squamæ are to be regarded as of an inflammatory nature,

although the inflammation is of a low, subacute type. The usual characters of inflammatory action, such as heat, pain, smarting, burning, throbbing, etc., are almost entirely absent. The same is substantially true of other syphilodermata. As we have already seen, one of the most remarkable peculiarities of them all is a deficient sensibility of the part involved in the disease, as if the cutaneous nervous substance were dead, or had nearly lost its functional energy. And perhaps this nervous defection gives rise to other singular features that appertain to venereal eruptions.

Sometimes the squamous affection exists on the palms of the hands as the only manifestation of constitutional taint, and shows a disposition to extend in every direction from a central point, thus presenting an annulate figure. It is called *psoriasis palmaris centrifuga*, or *erythema palmare annulatum syphiliticum*. Distinct and well-marked tubercles are often found associated with the squamæ in different parts of the affected area. Occasionally the disorder is developed on the back of the hands, and the central portion of the morbid surface presents a dark, livid hue for a long period, in consequence of enfeebled capillary action; and the scales which are detached from time to time are also of a very dark color, nearly black; but, as the process of cure advances towards completion, and the constitutional vigor waxes stronger, the integument resumes, by slow degrees, its natural properties, and the abnormal color fades away. The malady described as *lepra nigricans* is probably nothing more than this lepra syphilitica, characterized by dark, fuliginous squamæ. The blotches assume various tortuous appearances or forms, which are modifications of a circle, or segments of a circle.

In some instances the scaly eruption is accompanied by other consecutive symptoms. The mucous membrane of the nasal apertures and of the external auditory meatus, the eyelids, and mouth will exhibit marks of depraved action in the form of small pustules, excoriations, abrasions, or ulcers. Now and then leprous squamæ are seen on the face, or on the superior portion of the trunk, associated with tubercles on the arms, while ulcerations of various extent occupy the inferior extremities. These several coëxisting phenomena indicate a serious impairment of the system, and are rarely present unless the

patient has struggled for a very long period against the venereal poison. When the squamæ appear upon the scalp, the hair usually falls out, and it can seldom be restored to any great extent. In non-specific squamous eruptions the pilous apparatus remains intact, or nearly so.

TREATMENT OF SQUAMOUS ERUPTIONS.

The constitutional treatment with mercury, recommended where syphilitic lichen affects a chronic type, is equally appropriate in squamous diseases of specific origin. As they are seldom accompanied by inflammatory action of any great amount, either local or constitutional, antiphlogistics are not required. These squamæ cannot, in fact, be subdued by such energetic measures. Mercurials may be administered with a somewhat bolder hand than would be allowable in a lichenoid syphiloderma. The gums should be made, not absolutely sore, but quite tender, and the medicine be graduated in quantity so as to keep the gums in this condition until the cutaneous disease shows a disposition to decline. If the system be properly sustained by a full, nutritious diet, and the appetite encouraged by the administration of ferruginous tonics, or by quinine, or the infusion of quassia, the patient has nothing to fear from a somewhat protracted use of mercury. Its depressing influence can, in nearly all instances, be prevented, if the physician allow, in connection with it, a generous mode of living. To prescribe mercurial agents, and at the same time restrict the patient to a poor bill of fare, is, in my opinion, no way to cure him of constitutional syphilis.

All the liberality which the digestive apparatus can bear should be shown, in order that the system may be raised and preserved as near a healthy standard as possible. In my estimation it is of little avail to maintain a ceaseless warfare against the disease, by the employment of potent remedies, while the patient is kept on a meagre allowance of food. We might as well expect a ship to sail without wind, or a rush to grow without water, as to expect that syphilis can be subdued by such treatment. The squamous eruptions being, like the chronic venereal affections generally, of an asthenic character, there is a prevailing tendency to constitutional debility, which we are to

guard against. To check this downward inclination most effectually, we must sustain the energies of the system by food at once nutritious and easy of digestion, and thus confer upon the various organs, tissues, and fluids ability to antagonize the inimical principle that is hidden within the physical organization. Milk will usually agree with the patient. It comes already cooked, and contains such a combination of animal and vegetable qualities that no improvement can be made upon it. The patient may, at the same time, require a diffusible stimulant with it; and the physician need not hesitate to allow the addition of half an ounce or so of the best brandy, or a still larger quantity of Sherry or Madeira wine, to half a pint of milk, three or four times in the course of the day and night. To endow the impoverished and infected blood with more opulent qualities is also an end we accomplish by the liberal administration of ferruginous medicines; for it is a point now well established, that, by the exhibition of such remedies, the process of hæmatosis in the economy is facilitated, and that, in the normal growth and development of the blood, its characteristic corpuscles are augmented numerically; and hence the therapeutic value of chalybeates, whether given in conjunction with mercurials or with the iodide of potassium.

With a view, also, of restoring the lost tone of the constitution, the cod-liver oil may, in many cases, be advantageously prescribed in doses of two drachms three times a day, gradually increasing the daily quantity to ten or twelve drachms, provided it be borne quietly. It is sometimes difficult to reconcile the stomach to the presence of the oil, even in the smallest amount. But its salutary effects in sharpening the appetite, and promoting nutrition, and overcoming in a good degree the cachectic state of the system, are well known; and its claims to our confidence, in the condition of things we are now considering, cannot be doubted. It is usually retained quite well if administered in pale ale, or in the infusion of hops. Its disagreeable taste can also be disguised somewhat by the addition of a few grains of salt, by the aid of which it is more easily digested.

Jayne's Compound Oil. — An article bearing this title is manufactured by Mr. S. Queru, a practical chemist of New York. It has already attained considerable notoriety and

favor with practitioners, and in all probability is destined to become still more popular as a therapeutic agent, especially for delicate females, and other individuals who have great repugnance to the oil. As a medicine its value is equal to that of the latter substance, while it possesses the important advantage of being in a great degree deprived of its nauseous properties, and is tolerated by persons who cannot endure the oil. It contains eighty-five per cent. of the latter. It can be swallowed, without masticating, in a little sweetened water. Used in this manner the invalid perceives little or no taste, nor does it disturb the stomach like the crude oil.

The jelly will be found most appropriate for those syphilitic patients who exhibit a mal-assimilative diathesis and great emaciation.

Cod-liver oil has also been converted into a dietetic form by Mr. Lebague, a chocolate-manufacturer of London.* It is combined with chocolate in the proportion of four ounces to the pound. The cakes are divided into small tablets, each of which contains one drachm of the oil. This preparation is particularly convenient for children as a valuable dietetic medicine. The idea of prescribing the oil in this manner originated with Professor Wilson, who states that he has found it of great service.

If mercurial preparations are taken in immediate connection with the food, a larger quantity can be borne without exciting irritation in the alimentary canal than could be on an empty stomach.

Biett advises that the bichloride of mercury be taken in combination with opium, thus: —

℞. Hydrargyri Chloridi Corrosivi, ... gr. xij.
Pulveris Opii, ... gr. xx. M.
Ft. pil. No. xxxvj.

Give one pill every morning, increasing the dose by degrees, and discontinuing the medicine, from time to time, in case the bowels become too much affected. In his early practice Biett gave the preference to the oxymuriate over the other forms of

* Of No. 10 Little Tichfield Street, St. Marylebone. The chocolate can be obtained at Metcalf's, Tremont Street, Boston.

mercury. Wilson is partial to the bin-iodide, as at first recommended by Biett, although Biett soon relinquished the bin-iodide for the proto-iodide, which is more manageable, and is an eliminative agent of great power. The formula, as preferred by Ricord, has already been mentioned. The quantity of this salt for ordinary use is from one grain to four grains in the twenty-four hours. If opium be given in combination with the proto-iodide, the therapeutic qualities of the latter are completely neutralized, and therefore it should be prescribed in an uncombined form. Biett made this discovery.

For the purpose of awakening the cutaneous excernent system to increased action, sudorifics are to be prescribed as important adjuvants to mercurials. The kidneys are also to be brought into active play, and urination encouraged by the employment of diuretics. Thus, by the most efficient and at the same time the most simple and harmless remedies, the skin and kidneys, with their immediate associate organs, can be used for any length of time as drains in relieving the economy of the poison that pervades it.

The question often arises, how long is the mercury to be continued? Sir Astley Cooper was wont to say that the greatest secret in the treatment of syphilis is knowing when to discontinue this remedy. So long as the patient gives evidence of improvement under its influence, so long it is to be employed; but circumstances sometimes unexpectedly occur which render its further administration impracticable, and we are compelled to seek other remedial means as a substitute. In such cases the iodide of potassium will frequently prove a valuable article.

In some instances that have long been under mercurial treatment the disease seems to remain uninfluenced by it, and the general condition of the patient is retrograde. His appetite, flesh, strength, sleep, and courage, perhaps, have failed him. In this condition of things it will be advisable to suspend the administration of the mercurial, and to order the potassium, which may be given in doses of three or four grains, three times a day.

It may be directed as follows: —

℞. Potassii Iodidi, ... ʒij.
Extracti Gentianæ, ... q. s. M.
Ft. pil. No xxx.

Give one pill three times daily. Or the following: —

℞. Potassii Iodidi, ... ʒ iij.
Syrupi Sarsaparillæ, ...
Aquæ Fontanæ, āā, ... ʒ iiss. M.

Dose. — One drachm, morning, noon, and night, in a wineglass full of cold water, in immediate connection with the meals.

I have known persons who could not tolerate the iodide, even to the amount of only one grain in the day, on account of the severe and sudden inflammation which it excited in the skin. The subjoined instance is an illustration: —

A few years since, Dr. J. Mason Warren recommended to my care a lady who had suffered for several months from constitutional syphilis. I took charge of the case, Dr. W. being retained as consulting surgeon. In the process of treatment a crisis arrived when it was judged expedient to try the iodide of potassium in small quantities. Within twenty-four hours from the time the first dose was taken an erythematous condition of the integument of the face, neck, and chest displayed itself; and at the expiration of a few days more an abundant lichenoid eruption appeared, to the great annoyance and alarm of the patient. The medicine was discontinued, and in a short period the lichen disappeared. Several weeks subsequent to this accident a second attempt was made with the iodide in pills of two grains. The patient took a pill at night. The next morning the face was thickly dotted over with a minute papular eruption. The iodide was abandoned for one month, when a third trial was made, and a pill, containing one grain of the salt, was used at bedtime. The lichen was produced as on former occasions, but with less severity. This is the only instance of such peculiar idiosyncrasy that I have witnessed, and I was at first incredulous as to its reality.*

* Dr. Morland has recently had under his care a man who manifested a peculiar susceptibility as regards the iodide. The patient was thirty-nine years of age. The iodide was given in the compound decoction of sarsaparilla. Only two grains and a half were taken at a time, twice a day. On the *second* day the patient had so severe a coryza and headache, and was so uncomfortable every way, that Dr. M. was about to suspend the medicine, it seeming evidently to be the cause of these symptoms. It was, however, given once on the *third* day, when, almost immediately after its administration, there was so

Patients sometimes complain of a painful sensation in the throat and at the epigastrium for an hour or two after swallowing the potassium even in moderate doses. The aversion to it has been somewhat frequent in my experience; and occasionally of such a decisive tone that I have been compelled to abandon its use before a fair trial of its curative effects could be made. It has appeared, in some instances, to be better borne if made into pills with the extract of gentian, than when given in solution; but I have known individuals to complain of a distressed, sinking feeling in the stomach, occasioned by the pills. In whatever form administered it is apt to produce a thick, white coating upon the tongue; the mouth is sometimes exceedingly troubled by the secretion of a ropy mucus; the patient suffers somewhat as from slight ptyalism, and a loss of appetite ensues.

The abnormal condition of the mucous membrane, buccal glands, and stomach soon disappears if the potassium be discontinued. Still more serious and noxious pathogenic effects, attendant on the employment of this article, are on record. It now and then provokes epistaxis. In some persons an acute coryza is induced; and I have known it to occasion swelling of the face, the conjunctiva at the same time being highly injected and painful, as a consequence of the peculiar action of the medicine. It has been thought to bring out pustules [illegible] various portions of the skin. Its influence [illegible]

[illegible]

can take two or three drachms of the potassium in the twenty-four hours without inconvenience; and it has been administered to the amount of twelve and sixteen drachms in the day, and yet its properties, in these instances, were perfectly innocuous.

For the purpose of rendering the medicinal substance in question more agreeable and efficient, I have for a year or two past been accustomed to combine it with the carbonate of ammonia, which is a decided improvement. The impression upon the stomach and upon the general sensations of the patient is very pleasant. This is the report uniformly rendered by those who have made trial of the combination, — which is the following: —

℞. Ammoniæ Carbonatis, ... ʒ iss.
Potassii Iodidi, ... ʒ iij.
Syrupi Sarsaparillæ Compositi, ...
Aquæ Fontanæ, āā, ... ʒ iiss. M.

The usual portion is one drachm, three or four times daily, in a gill of cold water.*

The extremes as to the dose of the potassium are at a great remove from each other. No other remedy of established reputation enjoys so wide a range in this respect. What is considered a medium quantity, in ordinary cases, is a matter quite unsettled among the leading practitioners of the day; and there is no uniformity of opinion as to the class of cases in which it should be given, excepting those belonging to the tertiary syphilitic period. For the removal of these tertiary conditions its curative power is preëminent over all other medicines. In some tardy secondary affections I have occasionally prescribed it with the most satisfactory results. The amount which I prefer for long-continued use rarely exceeds six or seven grains three times daily. The London surgeons are mostly in favor of small quantities, in the belief that from these all the benefit will accrue that can be derived from large doses. Acton and Ricord employ large doses if small ones

* An opinion prevails at Guy's Hospital that the efficacy of the potassium is very much increased by its union with the ammonia. Vide *Medical Times and Gazette*, 1854, p. 488.

do not succeed, and they order it in conjunction with the tartrate of iron and potassium.

In June, 1857, I saw a girl, twenty years of age, then under the care of Dr. Salter, for constitutional syphilis, from which she had suffered for more than two years. For some months she had received no regular medical attention from any quarter, and her symptoms, which were both secondary and tertiary, had been gradually augmenting in severity. She was anæmic and much emaciated. For several weeks Dr. S. directed a moderate use of the iodide, together with tonics and a good diet; but as no abiding amendment was perceptible, he increased it to *one drachm three times a day*. This quantity was taken every day for four months. The patient experienced no inconvenience from the medicine; on the contrary, she began to convalesce very soon and very satisfactorily after commencing with the large portions of the potassium, and entirely recovered under this treatment, without any return of her symptoms. This is the only instance in which I have known the salt to be administered so liberally for so long a period.

The comparative merits of mercury and the iodide of potassium seem to have had a fair trial in the hands of Mr. Ormerod, at St. Bartholomew's Hospital. In reference to the latter medicine, the subjoined extract is the concluding paragraph of Mr. Ormerod's report: —

"The employment of iodine, however, has been attended with greater and more uniform success than any other remedy, except mercury, which has ever been introduced for the treatment of venereal diseases. Those affections which yield least to mercury, and that condition of health which succeeds to long-standing disease, and to the employment of very large quantities of mercury, yield to iodine in the most marked and decided manner." The opinion of Willis, as expressed in his "Illustrations of Cutaneous Diseases," in regard to the potassium, is this: "In broken constitutions, where mercury has been freely used at some former period, I believe that the iodide of potassium deserves all the credit it has obtained; it is an invaluable addition to our materia anti-syphilitica."

Iodide of Sodium. — This salt can be employed as an anti-syphilitic, instead of the iodide of potassium, in cases where

the patient cannot take the latter. It is not disagreeable to the taste, and is not followed by unpleasant effects. It may be ordered in all instances where the potassium is indicated. The daily quantity is from a scruple to two drachms. Dr. Gamberlini, of the Hospital of St. Orsola, Bologna, and Mr. Langston Parker, speak in terms of commendation of this remedy as a valuable addition to the substances usually employed in the cure of the venereal disease.

The subjoined formula will be found convenient: —

℞. Sodæ Iodidi, ... ʒj.
Syrupi Sarsaparillæ Compositi, ...
Aquæ Fontanæ, āā, ... ʒiij. M.

Dose. — One drachm thrice, daily, in a gill of cold water. *

The liquor potassæ has gained a reputation for the cure of syphilitic squamous eruptions. It may be administered in milk or in an infusion of hops. The dose is one drachm three or four times in the day. The dilute nitric acid is also a valuable remedy for many venereal patients. It is well calculated to revive the tone of the digestive organs, and is particularly indicated after a mercurial course has been pursued for a long period. Thirty or forty minims, *per diem*, in sweetened barley-water, may be given for two or three weeks.

Donovan's solution sometimes proves an efficacious remedy in this form of cutaneous affection. It is the *liquor hydriodatis hydrargyri et arsenici*. The dose of this compound solution is ten minims three times a day. It should always be taken on a full stomach. The following will be found a suitable formula: —

℞. Liquoris hydriodatis hydrargyri et arsenici, ... ʒj.
Syrupi Aurantii, ... ʒvj. M.

Give one tea spoonful in half a gill of cold water.

The mercurial vapor-bath, or the simple vapor-bath, can be beneficially employed if its application be practicable.

* For making the iodide of sodium economically and easily, a formula can be found in the American Journal of Pharmacy for 1854, p. 305.

CHAPTER XXX.

TUBERCULAR SYPHILITIC ERUPTIONS.

THESE may almost be regarded as a larger growth of the mere papules of lichen. In their original size and type, however, they are bigger than the minute, shot-like papules of true lichen. As elementary cutaneous lesions, they are commonly described as indurated lumps developed in the substance of the skin.

The late Mr. Babington believed that they had their origin in the sebaceous glands; and this is partly true. They vary somewhat in diameter when they first appear, as well as in their subsequent progress, according to the number of papillæ and follicles involved in the inflammatory congestion. They differ, also, in prominence. By bearing in mind the manner in which the lichenoid eruption is developed, it will not be difficult to comprehend the process of growth which results in the formation we are now to consider. The pimples of lichen often advance and swell into veritable tubercles; and both, that is, the lichen and the tubercle, are preceded by a roseolous or erythematous condition of the derma.

The tubercles may be crowned with a scab upon their summits when the patient first presents himself for medical aid, or they may be without this covering. Many specimens are dry, and almost hard to the touch; others impart a sensation of moisture to the finger; they are often slightly elastic, and yield under gentle pressure. At one time they are perfectly indolent, and remain for weeks or months without perceptible change. At another time they will be transformed with great rapidity into sloughing ulcers, and spread over large portions of skin in a short period. In feeble and anæmic patients the skin seems, as it were, to dissolve and melt away under this morbid process, in a manner truly frightful, especially when the disease is seated on the forehead, which is one of its favorite localities. Occa-

Tubercular Syphilis.

Tubercular Syphilis.

sionally the tubercles, appearing in small clusters, continue for a while distinct and isolated, and afterwards blend at their bases by a process of peripheral augmentation which fills up the interspaces. Each tubercle has now lost its individuality, and the integument appears as if covered with the eruption of psoriasis. When a long term of years has intervened between a primary chancre and the development of tubercles, the latter are apt to prove peculiarly obstinate in their resistance to treatment. If they appear upon any part of the face, they exhibit a brighter red color than when seated upon other districts that are protected by the clothing.

As with the papules of lichen so with syphilitic tubercles, there is some variety in their style of distribution; hence Wilson has given the names, tubercula *corymbosa*, tubercula *circumscripta*, tubercula *disseminata*, tubercula *annulata;* and when there is a strong pyogenic tendency in the system, and any of these varieties are converted into ulcerations, they are termed tubercula *ulcerantia*. These divisions are not entirely nominal. They are fully warranted and exemplified by the different modes of distribution of tubercular eruptions that are frequently met with in the venereal patients; and, considered in a scientific light, we cannot but approve of Wilson's classical nomenclature. [Plates IV., V.]

A large proportion of tubercles pass into foul, excavated ulcers with elevated edges, which, when they heal, leave behind them a deeply pitted cicatrix. Sometimes they disappear by resolution or absorption, without yielding any discharge; but even then they occasionally imprint a significant, depressed, and indelible mark upon the spot they have occupied, although not so profound nor so conspicuous as when ulceration has attended their destruction.

Phagedænic syphilitic ulcers, which are formed upon the soft parts near the commissure of the lips, upon the cheeks, and elsewhere, have their origin in tubercles, which first soften and ulcerate at their summits, and subsequently extend in every direction. It is not uncommon for several tubercles in the same neighborhood to ulcerate simultaneously. These ulcers coalesce, spread outwardly, present hard, jagged edges, and pour out a thin, dirty, sanious discharge at some points, while at others they are covered with dark, firmly adherent incrustations.

Another form of ulcer, originating in tubercle, is the serpiginous. In some instances this ulcer is quite superficial, and may occupy a large portion of integument without serious detriment to the general system. It causes quite limited destruction of the dermoid tissue; but creeps along in circles or segments of a circle, in spirals and other circumvolutions, the lesion varying in width from the eighth to the fourth of an inch, and sometimes wandering over an immense tract of skin. It appears most frequently on the neck, chest, and back, pursuing a centrifugal course, and healing along the inner border while it progresses in the line of the external margin. Again, the serpiginous ulcer is seen with an evident tendency to penetrate into the substance of the skin, and to exhibit sharp, well-defined, hardened edges. It is often developed upon the integument of the larger articulations, as about the knee and elbow; and when it heals, it leaves a dark-red, ridgy cicatrix, as if the skin had recovered from the burn of a hot iron. In some instances, this variety of serpiginous ulcer undermines the cutaneous integument here and there, without actually destroying it to the full extent of its course; and the overhanging skin conceals a portion of the ulcerated surface.

When tubercles are situated on the face, the copper color is generally sufficiently distinct to mark the disease as the offspring of the venereal poison. It has already been observed that, in some specimens, it is not a little difficult to distinguish syphilitic tubercles, when situated upon the face, from the eruption of acne indurata; especially is the difficulty increased in persons of a sallow or brunette complexion. The most skilful eye will be at a loss to decide. Indeed, it would be unjust as well as unscientific to form a diagnosis from visual evidence alone.

There is another variety of tubercles, which, fortunately, is very rare. It comes on the forehead, alæ nasi, near the angle of the mouth, on the tongue, and sometimes at the aural pavilion. These tubercles always ulcerate; but the discharge is scanty and of viscid consistence. They are sometimes described under the name of perforating syphilitic tubercles. They are likewise known by the title of syphilitic lupus. They occasionally unite into one common mass, and cause considerable tumefaction. The disease commences like a reddish nodule, without

well-defined limits. It soon increases in activity; and on account of the peculiar diffused redness of the surface, which for a time is a prominent feature in the case, it has been designated the *lupous efflorescence*. Sometimes the tubercles will disappear for a while, but they usually return and perform a horrible work of destruction. Softening and ulceration proceed from their apices, and penetrate slowly until the parts are completely demolished. At first a small, deep, perpendicular sore is formed. It yields a very little exudation of semi-purulent matter. A thick crust is produced, beneath which the ulcerative process invades the adjacent soft tissues, which in turn give way; and if the disease be located on the nasal organ the most revolting mutilation is sure to take place. This kind of tubercular syphilide bears a close affinity to lupus both in its general features and in the chronic course which it pursues. It often exists in association with a carious condition of the vomer or other nasal bones. Such cases generally terminate in nearly a total destruction of the nose, in spite of all treatment. The malady has been confounded with cancer. Although its local ravages may equal those of the most malignant variety of the latter, they are attended with much less pain, and give rise to much less constitutional disturbance, than usually accompany cancerous affections.

Treatment of Tubercular Eruptions. — In whatever manner tubercles may be developed, whether in the aggregated form, or whether they are sparsely disseminated upon the face, trunk, and extremities, the treatment which they require is substantially the same.

The first point to be definitely settled is, as in all constitutional symptoms, to adjust a suitable hygienic course, which the patient should feel bound strictly to pursue. It is but too often that we have occasion to break in upon divers irregularities and improprieties of habit in which the victim of syphilis indulges, and which, if not abandoned, will tend directly to oppose and render abortive the best remedial measures which the physician can employ; nay, more, such excesses will give strength to the syphilitic virus, while at the same time they enfeeble the organization which it pervades.

A good, nourishing diet should be allowed, and spirituous

and fermented liquors be prohibited. If their abandonment be a privation, the more urgent the reason for this prohibition. Both parties should understand, if they do not already know, that a due regard to the general health is a matter of importance no less than the skilful use of medicines. The patient, if he be so disposed, can do a vast deal towards the subjugation of his intractable disorder. The physician can boast of no specifics. He can exert his talents in the application of various substances in the materia medica, with a view to extinguish the morbid phenomena as they arise from time to time in long succession; and he may, ordinarily, feel justified in encouraging the poor sufferer that he will finally recover a fair amount of health. There are many syphilitic individuals who, to all appearance, wholly regain their original vigor of body and mind. Others there are, and the number is not small, who never enjoy this boon.

What has already been offered, respecting the constitutional management of syphilis in its earlier stages, leaves but little room for any additional suggestions in this place. Whether the tubercles are all in a state of induration, or whether a portion of them have passed into a state of softening and ulceration, the bichloride of mercury may be employed to the amount of one-tenth of a grain, morning and evening, provided there is no indication to the contrary. If this salt have already been sufficiently tried without benefit, the iodide of potassium, or some other remedy of acknowledged reputation, must be selected. The carbonate of ammonia has been known to accomplish a speedy cure where mercurial preparations have failed. It may be administered in the form of julep, commencing with one drachm of the salt in the course of the day, and gradually increasing the quantity until the patient takes two or three drachms in the twenty-four hours.

I have often made trial of the iodide of iron in the latter stages of secondary ulcerations, but have never had the good fortune to realize any marked beneficial effect from its administration. I have ordered it in small and in liberal doses, with the hope that it might operate as a tonic to the blood, the *humoral* character of which we cannot doubt at this crisis of the syphilitic disease, if we ever did before. The ferruginous preparation here mentioned has been considered, and even now

is regarded by some practitioners, as a powerful agent when prescribed in large quantities, and as particularly adapted to cases where a decided syphilitic cachexia exists, or a state of anæmia combined with scrofula. This salt is readily decomposed; and I have always been in doubt whether, even when given in the form of syrup, it can be preserved in its normal state for any great length of time. At any rate, my want of success with it has induced me to relinquish its use, and to employ in its stead the potassio-tartrate of iron, or the iodide of potassium, together with other tonics, such as nitric acid and quinine. I have confidence also in the efficacy of sarsaparilla, given largely for several successive weeks. Warm baths, or, what is still better, vapor baths, should likewise be administered. They not only purify the surface, but essentially promote capillary circulation, and render more active the sebaceous and sudoriparous apparatus, and thus greatly aid in eliminating the morbific element from the system.

The course above suggested will usually accomplish the resolution of most, if not all, of the indurated tubercles; and if any have passed into a suppurative condition or stage of ulceration, they will also undergo an amendment from the same constitutional measures. Arsenical preparations, the decoction of *rumex obtusifolius*, the decoction of Feltz, the decoction of Zittman, directions for which can be found in the books, will all be useful, and should be tried in cases that prove particularly obstinate.

Local Treatment. — The nitric oxide of mercury ointment will constitute a valuable application to indurated tubercles. If they are situated on the face, their speedy removal will afford great relief to the feelings of the patient; and a small quantity of the unguent rubbed upon them at night will assist in hastening this result. The iodide of sulphur ointment and the citrine ointment are likewise very efficient remedies. If the circumstances of the patient will allow of these appliances during the day, he will be rid of the morbid growths all the sooner.

As local applications to ulcerated surfaces, following the softening of tubercles, the compound tincture of Benzoin, the nitric acid, the aromatic wine with opium, the solution of potassio-tartrate of iron of different degrees of strength, the

tincture of iodine, a dilute solution of chloride of soda, etc., will naturally suggest themselves to the surgeon as important auxiliaries to the constitutional treatment.

If the practitioner be dealing with a serpiginous ulcer, which is very apt to eat its way under the skin in a tortuous manner, the compound tincture of iodine may be applied directly to the ulcerated surface where the matter has burrowed, and it may be allowed to impinge upon the entire walls of the ulcer. A drachm or two of the tincture may be used every second day. Its employment should be followed immediately by the use of warm water, and thus the iodine will be at once diluted and washed out. This method of local treatment will frequently succeed satisfactorily. The employment of the iodine does not give much pain. The morbid secretion from the ulcer is spread over its surface as a sort of varnish, and in a good degree protects it from any violent or very painful effect. Patients do not complain of the severity of the operation. When the ulcer is brought into a healthy state, which will be evinced by its carneous, granulating aspect, it can generally be kept so by the constant use of the weak nitric acid lotion, half a drachm to the pint of water.

When the process of undermining the skin reaches to any great extent, so that local remedies cannot be used and retained on lint to advantage, it will be best to slit open the loose integument throughout the whole distance with a spear-pointed bistoury and thus obtain a better chance for the action of topical applications.

If the ulcers become painful they will require to be dressed with a warm solution of the extract of opium several times in the day, and at night with an ointment containing prussic acid.

℞. Acidi Hydrocyanici, ... ℥ ss.
Cerati Simplicis, ... ʒ iss. M.

Bits of lint, smeared with this cerate, should be placed in contact with every accessible portion of the sores.

If the ulcers remain indolent, the following solution will often prove a convenient and useful stimulating dressing, when others fail to answer the purpose: —

℞. Plumbi Acetatis, ... ℈ss.
Ammoniæ Carbonatis, ... ʒ ss.
Aquæ Fontanæ, ... ℥ viij. M.
Apply on lint.

If at any time the ulcers assume an inflammatory aspect, a local antiphlogistic treatment will be appropriate. Should a sloughing condition take place, the nitric acid undiluted, or the compound tincture of Benzoin, will be indicated for topical use. The chloride of zinc is a favorite dressing with some surgeons. The following is a medium strength: —

℞. Zinci Chloridi, ... ʒ j.
Aquæ Fontanæ, ... ℥ viij. M.

Dossils of lint, saturated with this solution, are to be laid upon the diseased surface, and renewed thrice daily.

Bromine. — This is an elementary substance obtained from bittern and possessing many analogies to chlorine and iodine. It is sparingly soluble in water. As a therapeutic agent it has recently acquired a reputation among some of our army surgeons, who have employed it as a caustic in cases of sloughing ulcerations and gangrene, instead of nitric acid. But it remains to be seen whether its superiority over the acid will be fully demonstrated after having been more generally used in surgical practice.

It is not, however, particularly as a caustic that I propose to speak of it, but rather to commend its use in a very diluted state as a constant lotion to atonic ulcers and those of a phagedænic character requiring a stimulating dressing. The bromide of potassium can also be administered internally in cases where the iodide of potassium is indicated, but where the patient, from peculiar idiosyncrasy, is unable to tolerate it. The bromide, however, is quite inferior to the iodide for internal use. It is also of less value than the iodide of soda.

The subjoined formulæ for the use of the bromine and the bromide of potassium, are the principal ones in vogue: —

For Internal Use.

No. 1. ℞. Potassii Bromidi, ... ʒ ss.
Glycerinæ, ... ℥ ss.
Aquæ, ... ʒ iiiss.
M. Ft. mistura.
Dose. — ʒ ij. thrice daily in half a gill of cold water.

No. 2. ℞. Potassii Bromidi, ... ℈j.
Brominii, ... gtt. viij.
Aquæ, ... ℥iv.
M. Ft. mistura.
Dose. — ℥ ij. thrice daily in half a gill of cold water.

For External Use.

No. 1. ℞. Brominii, ... gtt. xvj.
Aquæ, ... ℥ viij.
M. Ft. lotio. To be applied with lint as a constant dressing to indolent ulcers.

No. 2. ℞. Brominii, ... gtt. x.
Potassii Bromidi, ... ℈ij.
Aquæ, ... ℥ viij.
M. Ft. lotio. In the same cases as the preceding.

No. 3. ℞. Brominii, ... gtt. xx.
Cerat. Cetacei, ... ℥ i.
M. ft. unguent. To be applied to the sores night and morning, on lint.

No. 4. ℞. Potassii Bromidi, ... gr. x.
Brominii, ... gtt. viij.
Cerat. Cetacei, ... ℥ j.
M. ft. unguent. In the same cases as the last.*

MUCOUS TUBERCLES.

Syphilitic patients do not all experience the same constitutional accidents; nor do these accidents uniformly exhibit themselves in the same undeviating succession; neither does it follow, as a matter of certainty, that a person who has tertiary syphilis must previously have had secondary symptoms. In some rare instances the primary disease and the tertiary manifestations coëxist, although Ricord is entirely absolute that primary, consecutive, secondary, transitionary, and tertiary accidents follow each other with the most perfect regularity. This order in the series of morbid syphilitic phenomena he believes, from clinical observation, to be uniform, unless interfered with by treatment.

It is sometimes difficult to determine which of the consecutive constitutional affections should claim attention first; and

* Caillault on the skin, p. 287.

again it is not always easy to assign to every morbid development its most appropriate position in the natural history of the complaint. Mr. Wilson arranges mucous tubercles in the second group or period of syphilodermata, along with the tubercula ulcerantia, superficial and deep, lupus ulcerosus and tumores gummati; that is, as belonging to *tertiary* syphilis. But mucous tubercles are frequently evolved in a few weeks after the existence of the primary chancrous sore, and are sometimes the earliest constitutional developments that appear. I now happen to have under my care a young girl of sixteen, who contracted a chancre in the month of April. Eight weeks after exposure, mucous tubercles in great profusion sprung up around the anus, then appeared upon the perinæum, then upon the right labium. Soon afterwards a papular eruption spread itself extensively over the trunk and limbs, and at a later period secondary lesions showed themselves within the mouth. This is far from being a solitary or rare instance of constitutional syphilitic phenomena arising in the order above stated. Such cases induce me to regard mucous tubercles as belonging to secondary syphilis rather than to tertiary. They are designated by several correlative terms, or synonyms, as muco-cutaneous papules, condylomata, *pustule plate*, *tubercule muqueux*, *papules muqueuses*, etc. They are developed upon the moist surfaces of the genital and anal regions, upon the mammæ, and in the axillæ. They are occasionally seen sprouting from the umbilical depression, within the buccal cavity, within the nostrils, and just at the orifice of the external auditory canal. Occasionally they are observed at the commissure of the lips, and about the roots of the nails. They are found in women much more frequently than in men. With the former, they mostly infest the inner surface of the labia majora. In the latter, they are usually seen forming a broad wall around the anus. A specific feature in regard to them is that they rarely, if ever, proceed to normal ulceration, unless exposed to long-continued irritation. They have a smooth or granular surface, and are of a deep, dull red or copper color. Where no measures have been taken to arrest their progress, they often spread over large portions of integument. A few days since I saw, in consultation, a young Englishman, on whom these mucous tubercles had been growing unmolested for several months. They occupied the whole

perineal region, the scrotum, the root of the penis, the inguinal folds, and the upper part of the thighs. Upon the latter and upon the scrotum and penis they were mostly isolated, and projected very prominently; on the perinæum and around the verge of the anus they were closely crowded together, and presented a dirty grayish coat on the surface, consisting of epithelium They were moist and elastic to the touch, and sufficiently disgusting to the olfactories. They had been subjected to no treatment, not even to that by cold water. At times, after much exercise, they occasioned a slight degree of pain, but no other inconvenience. The patient had other venereal maladies, derived from a chancre which he caught two years previously.

Mucous tubercles commence by increased vascularity in the spot from which they are about to germinate. Sometimes they are developed with great rapidity, and are more or less excoriated. When they occur upon the mucous membrane of the labia, where they are always subject to gentle pressure, they do not ordinarily grow much above the adjacent surface. If they are evolved in groups, and become confluent, they may exhibit in the aggregate an extensive flat surface, while, if not subjected to pressure, the entire warty mass may be elevated two, three or four lines above the surrounding integument. When seated upon the dartos they are generally solitary, and reach an extraordinary elevation and size, and are often traversed by fissures, from which a filthy, serous exudation oozes, charged with a most revolting smell.

Many specimens present in their superficial substance a light yellow appearance, which is due to the presence of swollen sebaceous follicles. Their soft, pultaceous consistence is caused by an infiltration of serous fluid into the minute connective tissue cells which abound in the morbid growth. The condylomata are constituted of enlarged papillæ, and have their origin in the corium. The accessory organs of the skin also become involved. The sebaceous glands and follicles increase in size, and subsequently a formation takes place of the epidermic-like cells; a process which does not occur in the normal condition of the sebaceous apparatus.

In some cases the morbid growths in question will remain upon the parts for a long period without annoyance to the indi-

vidual; in others, if neglected, they occasionally give rise to superficial ulcerations, and harass the patient not a little. When they infest the anal region they occasionally give rise to fistulous sores; and inflammation and stricture of the rectum have been known to occur in consequence of them. The stricture is usually situated about two inches from the verge of the anus; its form is that of a double funnel, and it gives rise to a sero-purulent discharge occasioned by ulcerations of the mucous membrane; the fæces are liquid, and are expelled without much difficulty.

In a case which I recently saw, at one of our public institutions, the tubercles covered the clitoris and the entire mucous surface of the labia. In some places they had the cauliflower or raspberry appearance. There was engorgement of the mucous surface as far as the examination could extend without the use of the speculum. The epithelium of the labia was disorganized and at several points detached, thus showing excoriations, from which a trivial discharge was constantly oozing. This, added to the natural exhalation from the parts, produced a nauseous effluvium, which it is unnecessary to describe particularly. The mouth and throat likewise exhibited consecutive lesions. The woman had been married about eight months, and dated her sickness from that event. For several weeks she suffered considerably from constitutional disturbance arising from her venereal symptoms. She was pregnant.

These mucous tubercles or patches may appear upon any part of the body of an infant; whilst, on the contrary, in the adult, they are confined to the mucous tissues and to those portions of skin that are peculiarly delicate and exposed to friction. It is important that they should not be confounded with other tubercular syphilides, which are non-contagious, whereas the mucous tubercle or broad condyloma takes the first rank among the secondary or constitutional symptoms of syphilis, which are communicable by contagion.

The mucous tubercle usually appears at an earlier period than the other variety, and is strictly a secondary lesion. In some instances, however, the mucous patches are developed upon the tongue or other parts within the mouth and elsewhere, while the ordinary syphilitic tubercular eruption is disseminated upon the face, trunk and limbs.

CHAPTER XXXI.

SYPHILITIC PUSTULES.

THE pustulæ may be considered as forming the third link in the metamorphic development of the syphilides. The papule is usually but the prelude of the tubercle. The pustule is engrafted upon the tubercle, and the ulcer appears next after the pustule. Such is the order of succession in most cases, but not in all. The normal series may be broken by the course of treatment, and by other intercurrent circumstances; so that we are unable to say whether the *vis medicatrix naturæ* would pursue, in all cases, an undeviating method in this strange work of development, which is neither more nor less than the result of the various surgical experiments which nature institutes in her own self-defence.

The syphilitic pustule is formed upon the summit of the tubercle, which softens at this point, while the part that reposes upon or within the derma may remain unchanged. Thus the pustule will sometimes linger upon an indurated base for many weeks, and will yield but a small quantity of fluid, and this will be very different in composition from that of ordinary impetigo, the pustules of which are always of a decidedly inflammatory character, and always furnish laudable pus; but it is seldom that true, yellow pus is elaborated from syphilitic pustules, although some of them belong to the impetiginous form of eruption. (Plate VI.)

These pustules are extremely sluggish in their formation, and after occupying the derma for several weeks, or even months, will heal; and thus, to one not familiar with their behavior, they give promise of future good to the patient; but anon, a new crop springs up on some distant portion of the integument, which shows that the disease is still persistent in the economy. Sometimes the pustules degenerate into con-

secutive ulcerations of greater or less depth, and secreting a foul, heterogeneous mixture of blood and serum, with perhaps the addition of a small quantity of pus globules, they refuse to improve under the most judicious management. They have been divided by Willan into two groups. First, those that acquire a large size, are seated on an inflamed and indurated base, terminate in a dense, brown scab, like the pustules of ecthyma, variola, and vaccinia, and are called *phlyzacious* pustules. The second variety is known among dermatologists as *psydracious* pustules. They are small, scattered, or in clusters, and terminate in crusts of various irregular forms, as the pustules of impetigo, acne, and sycosis. Alibert gives to them all the title of *crustaceous pustular syphilide*. The foregoing distinctions, although they may be clear and important to the fastidious mind of the professed dermatologist, are, after all, a matter of secondary consideration; for the pustules require no special difference either in constitutional or local remedial measures. The eruptions are expressive of great debility and exhaustion of the system, which has now maintained a ceaseless warfare for a long period against its relentless foe.

The phlyzacious pustules that arise from the syphilitic poison, and bear a general resemblance to ecthyma, are among the most remarkable and important we meet with. They are larger than those arising from the apices of tubercles. They are not numerous at any one time. They appear in successive crops, but at distant intervals. They are disseminated over various parts of the body and limbs, and also upon the face. They have a broad, ulcerated base, are flattened, and frequently show a central depression like that of small-pox when on the decline. The epidermis is pushed forward by the presence of a dark, thick, viscid, sanguinolent secretion, and the pustule and scab are encircled by a purplish-red, not copper-colored, ring of subacute inflammation. If the disease be not arrested at an early period, ulceration of a superficial kind takes place beneath the scab, which is constantly pushed forward by new accumulations of ichorous, semi-purulent matter; and this, in turn, hardens into an incrustation. The cuticle becomes detached around the border of this incrustation, which expands by increments of concentric zones, until the thin, brown, pointed, elevated, and rough crust of rupia prominens is pro-

duced. When this curious hollow cone is complete, the original stratum which formed its base becomes its apex; and of all the morphological transformations that occur in the history of syphilitic pathology, none present more hideous or extraordinary features than the physiognomy of rupia prominens. Judging from outward appearances alone, it would be impossible to trace any affinity or relationship between this malady and its progenitor, the insignificant, harmless-looking pimple, the size of a pin's head, peering out from the integument of the penis in the form of chancre. Individuals who are the subjects of this devastating form of syphilitic affection, are often reduced to the lowest degree of prostration. Life, indeed, may be spared, — it usually is, — and, after years of suffering, debility, and self-loathing, the unfortunate victim may gradually emerge from his deplorable condition, and regain, in part, his original health. In a majority of cases, however, it is only in part, and he is under the imperious necessity of watching and guarding at all times, and with unremitting solicitude, the shattered remains of what, perhaps, was once a splendid and vigorous frame.

Professor Wilson, in the last edition of his work on diseases of the skin, takes occasion to modify the views he formerly expressed in regard to pustular eruptions developed under the influence of the venereal poison. For instance, he no longer considers it correct to speak of *impetigo syphilitica*, this pustular condition being nothing more than a syphilitic lichen passing into a state of ulceration.

With the exception of rupia, it is probable that the different kinds of syphilitic pustules are in fact but a secondary stage of lichen or tubercle. A careful observation of the origin of the pustules, I think, will sustain this view, and we need have no difficulty or hesitation in adopting Wilson's theory, which is that the only eruption coming strictly under the denomination of pustular syphilis is rupia, an affection depending especially on a pyogenic condition of the constitution. But it would be a digression from the design of this work to proceed more at length into discussion here, with a view to settle any unimportant differences which the pustular as well as other syphilodermata present at different epochs of their history.

Wherever the pustules are situated, they are very apt to

crusts are somewhat irregular; hence the epithets "limpet-shell," and "oyster-shell," to which they have been compared.

CASE. — Mrs. B., aged thirty-six years, residing in a neighboring city. Four years previous to my seeing her she received the venereal poison from her husband one week before his death, which took place suddenly from an injury. The woman had never been under the care of any regular practitioner except at odd intervals. The tampering of quacks constituted the principal medical attentions she had received, and the disease may be said to have pursued very much its own course. It was in the month of July that I saw the patient for the first time. I found her sitting in a chair. She had been confined to her room for about six months, was able to sit up in bed or in her chair nearly all day, and could walk across the room. She was emaciated and anæmic, and as filthy as she was thin. The catamenial function had been suspended for ten months. The face was covered with some eighteen or twenty rupial crusts, from the fourth to the half of an inch in diameter, and in length some of them had grown to nearly an inch. They were distributed nearly symmetrically on parts corresponding with each other, not only on the face but elsewhere. Upon the back of the hands, and upon the dorsal surface of the thumbs and fingers, especially on the integument covering the joints, they were particularly numerous. On the upper portion of the back, the scapulæ, about the shoulder-joints, along each clavicle and arm, they had also formed in great numbers, and had, in some instances, reached the size of an inch in diameter and as much in length. On the thighs and legs they were likewise thickly developed. About the knee-joints they had acquired the greatest dimensions. A few had a circumference equal to a half dollar. Numerous cicatrices were seen where former rupial sores had healed, and several ulcerated patches existed from which the crusts had fallen off. These atonic ulcers were all superficial. The woman had no relish for food; the bowels were costive, the tongue slightly coated, and having upon its edges the impressions of the teeth very deep; the pulse was quick and feeble. [Vide Frontispiece, Plate I.]

Quinine, chalybeates, the iodide of potassium, cleanliness, and a generous diet were prescribed. In four months the

cording to request, was careful not to disturb it by picking or rubbing. The crust was produced very gradually, each layer being preceded by an erythematous band, which widened from time to time; the cuticle subsequently became distended with a thick opaline, semi-purulent fluid. In six weeks the crust completed its growth. It had a slight downward curve near its apex, projected about an inch from the jaw, and was an inch in diameter at its base, which was in form a compressed circle. None of the other crusts assumed this peculiar prominent aspect. They became considerably thicker in the central portion than at the circumference, presented a large circular base, were for a long time very adherent, and on being cast off spontaneously, an ill-looking ulcer, having no disposition or power to furnish healthy pus or granulations, was brought into view.

One or two points in connection with the foregoing narrative I must presume to submit to the reader for consideration. The most careful inquiries failed to bring out the whole truth touching the history of this case. The husband denied all experimental knowledge of syphilis in his own person; and I believed him. The woman ignored all primary symptoms, as developed in the usual localities or any other place; and I did *not* believe her. I was confident that she was the transgressor. The parties were in health at the time of marriage. Now the query is, when did the woman contract the disease, before marriage, or after the birth of the second child? She never suffered abortion, and both children were healthy. The husband believed the infection took place anterior to matrimony.

Treatment of Pustular Syphilis. — For this I must refer, to a considerable extent, to the principles already adduced. If I were to offer any further considerations or suggestions, they would be in reference to the importance of attending now, more than ever, if possible, to the employment of all the hygienic means that can be summoned, with a view to rescue the patient from impending danger; for he is often so sadly reduced that medicines seem to be nearly inert, or perhaps absolutely injurious. When such a case occurs we may interpret the failure of the system to respond in the usual manner

conduct cases of rupia to a successful termination, may regard himself as able to manage the lesser pustular forms that arise in syphilitic patients.

The iodide of potassium often exerts a salutary action over the class of accidents now before us, and, in a majority of instances, no *one* remedy is more influential in promoting recovery. The rupial affection quickly gives evidence of amendment, and the general condition of the patient improves very rapidly. The salt just named may be advantageously employed conjointly with the compound decoction of sarsaparilla, and can be administered for several successive weeks or months, if need be. In lichenoid and tubercular eruptions, which are purely secondary manifestations, the iodide fails to be useful; but when these have become pustular, and have reached that transition state which, so to speak, is midway between secondary and tertiary syphilis, or when tertiary accidents have actually occurred, then it is that it displays its sanative powers to the best advantage. But notwithstanding the symptoms yield so readily to its influence, and the patient continues to improve, and even, perhaps, may remain to all appearances cured for a while, the disease is liable to return. The same remedy can again be employed as one of the elements in the treatment; but it will not be advisable to rely upon it as during its previous exhibition. The venereal poison still reigns in the system; and, whatever theoretical views we entertain of the action of the potassium, we have the clinical fact now before us that it will not, alone, eradicate the virus. Where small doses fail, some surgeons advise a great increase in the quantity, even to the amount of two or three drachms *per diem*. I have seen this experiment work advantageously; and, on the contrary, I have known large doses to be used in rupial pustules and ulcerations without producing the desired improvement. Failing of success by such a procedure, I have sometimes witnessed the best effects where the tartrate of iron and potash has constituted a supplementary article to other remedies. If the patient has been subjected to somewhat heroic experiments for a long time, with no special benefit to his malady, his system is very liable to become irritable and greatly debilitated; and he seems suddenly to lose all power to tolerate medicines of any description. The iodic, or what is still worse, perhaps, the mercurial intoxi-

The small pustular and ulcerative affections that appear between the toes and at the roots of the nails do well when dressed with aromatic wine and opium, balsam of Peru, compound tincture of Benzoin, or the weak nitric acid lotion. A solution of the aqueous extract of opium, with the addition of a small quantity of the solution of chloride of soda, makes an excellent anodyne and stimulating application: —

℞.	Extracti Opii Aquosi, ...	gr. xxv.
	Aquæ Ferventis, ...	℥ viij.
	Cola, et adde, ...	
	Solutionis Sodæ Chloridi, ...	ʒ vj. M.

Let the above solution be frequently applied to the sores by means of pledgets of lint.

The position of the foot, while these ulcers are upon it, is a matter of no small importance. It should rest upon a cushion in a chair or on a sofa.

Two or three drachms are to be rubbed upon the scalp at night. This lotion bears the reputation of bringing out a new crop of hair, unless the hair follicles, with their productive base or matrix, are destroyed, which is not often the case with young syphilitic subjects, although it is the fact in senile baldness.

The following lotion is an agreeable, and oftentimes an efficacious remedy: —

℞. Aquæ Colognæ, ...
Spiritûs Rectificati, āā, ... ʒj.
Tincturæ Cantharidis, ... ʒiij.
Aquæ Fontanæ, ... ℥viij. M.

A drachm or two may be rubbed into the scalp morning and night.

Another topical remedy may be prepared according to the annexed formula: —

℞. Olei Lavandulæ, ... gtt. xv.
Essentiæ Jasmini, ... ʒj.
Tincturæ Cantharidis, ... ʒij.
Unguenti Rosarum, ... ℥j. M.

A small quantity of this ointment is to be rubbed into the scalp with brisk friction.

The use of an ointment containing creosote has occasionally been followed by a reproduction of the hair: —

℞. Creosoti, ... gtt. x.
Olci Limonis, ... " iv.
Unguenti Rosarum, ... ℥j. M.

The whole scalp should be thoroughly cleansed, night and morning, with the best *White Windsor Soap* and warm water, and afterwards a small quantity of the ointment must be rubbed into the bald patches with the finger. Meantime the iodide of potassium is to be administered internally.

The iodide of mercury will sometimes arrest the thinning of the hair when occasioned by syphilitic causes, and the subjoined preparation can be prescribed: —

℞. Pulveris Camphoræ, ...
Hydrargyri Proto-Iodidi, āā, ... ℈ss.
Unguenti Rosarum, ... ℥j. M.

A small quantity of this is to be thoroughly rubbed into the hair at night. It is quite stimulating to the integument; and after a few applications, perhaps every other night will be as often as the patient can bear it comfortably.

The following is a particular favorite with some of the French surgeons. It goes by the name of Dupuytren's pomade, although it is by no means certain that the preparation can rightly claim such paternity: —

℞. Olei Caryophylli, ...
" Canellæ, āā, ... gtt. xvj.
Plumbi Acetatis, ... ʒ ij.
Balsami Peruviani, ... ʒ ij.
Spiritûs Rectificati, ... ʒ j.
Medullæ Ossium Bovis, ... ℥ viij. M.

Another: —

℞. Unguenti Hydrargyri Nitratis, ... ʒ ij.
Olei Olivæ, ... ʒ j. M

The last prescription will often do the patient essential service in obstinate cases of alopecia. If the scalp has been the seat of syphilitic lepra, or of any tubercular or pustular affection, leaving a scaly condition of the integument, this compound may be usefully employed. I have also frequently ordered it with satisfactory results in cases of non-specific alopecia, accompanied with a slight pityriasis. I know of no better topical remedy, whatever may have been the original cause of the complaint. It may be perfumed with a few drops of bergamot or lavender if the patient choose. The hair should be thoroughly brushed before using it.

The hair must be kept very short either with the scissors or the razor. The latter should be used every ten or fifteen days unless the scalp be too tender to endure the shaving process. If the baldness be of very long standing, and occupy extensive portions of the skin, and if the latter present a polished, eburnated appearance, it will be exceedingly difficult to relieve the deformity. In some instances it is associated with other constitutional manifestations, such as pains in the bones, superficial ulcerations, or syphilitic lepra, fissures about the angles

of the mouth, partial loss of the nails (syphilitic ungual alopecia), or inflammation and hypertrophy of the mucous lining of the mouth and throat. In all such cases, while any of the above named topical remedies are applied to the calvaria, the general treatment indicated by these concomitant symptoms should be employed.

CHAPTER XXXIII.

ULCERS ON THE TONGUE.

Among the most frequent situations for the appearance of secondary symptoms are the parts within the mouth. The lips, more especially at the angles of the oral aperture, are often excoriated, or are the seat of ulcers; the tongue is affected more or less with excoriations, with fissures, with ulceration, and induration of its substance; the gums, the uvula, the tonsils, the soft and hard palate, and the posterior walls of the pharynx, are all liable to suffer from the violent local action of the syphilitic poison. The vascularity of the mucous membrane within the buccal cavity, and its intimate sympathetic and anatomical relations with the external integument, seem to predispose it to participate in many of the forms of disease that are developed upon the latter tissue. This tendency is not manifest in the syphilodermata alone; it is seen in scarlatina, in measles, in severe eczematous inflammation, etc.

The fauces are generally inflamed, or even ulcerated, at an early period in the train of secondary venereal phenomena that are manifested upon the mucous membrane.

In certain patients of a scrofulous diathesis, and of frail constitution, or who have been scantily supplied with food, or have lived on that of an inferior quality for a long period, and thus have induced an impoverished state of the blood, we occasionally meet with eruptions and ulcers so nearly resembling those resulting from the venereal virus that we can hardly say wherein the difference consists; and yet nothing can be more unfortunate for the physician in private practice than to commit a mistake in this matter; for he may thus charge the patient with crime he never committed, and, by this false accusation, provoke a displeasure which may never have an end. Sailors who make long voyages, and who are reduced to short

rations, and those, perhaps, consisting of poor articles of diet, are subject, from these causes, to eruptions and ulcers on the skin, and to corresponding appearances on the mucous lining of the mouth, which closely resemble secondary symptoms. In examining seamen at the Marine Hospital, in Chelsea, I have occasionally met with such anomalous cases; and the question has often presented itself, whether an eruption or ulcer upon any part of the skin or of the mucous surface can be pronounced, *per se*, to be syphilitic, unless accompanied by other corroborative testimony. I answer in the negative. The opinion here expressed, however, is not applicable to *infantile syphilis*. In new-born children it is extremely rare to find any cutaneous eruption, or any affection of the mucous membrane, as of the nose or mouth, except those of a venereal character. This fact will receive further consideration, under the head of Infantile Syphilis, in the concluding chapter of this work.

Tubercles, ulcerations, and other consecutive lesions that attack the mouth and throat, furnish the strongest evidence of the contamination of the blood. They are, for the most part, more easily managed than analogous affections that appear upon the cutaneous tissue. In some instances, however, they prove the most obstinate morbid conditions we attempt to remedy. In still other cases, when we think the parts are nearly well, and we are anticipating the time as at hand when the treatment can be discontinued, the diseased action will be kindled up anew, and we are driven to straits as to what can be done next.

The Tongue. — The true syphilitic ulcers that attack the tongue generally penetrate quite deeply into its substance. Their edges are sharply defined, excavated, and hard to the touch. Their occurrence is much less frequent than the more superficial ulcerations of the tonsils and pharynx. They are sometimes mistaken for cancer even by experienced surgeons. Several cases are mentioned in Guy's Hospital Reports;* one, in particular, where a venereal ulcer of the tongue was pronounced by several eminent surgeons to be cancer. It was touched with caustic, and the iodide of potassium administered

* Vol. VII., p. 345.

internally for six months, by which time the ulcer was healed perfectly. The patient finally acknowledged that he had the syphilitic taint; and the presence of coppery stains, detected upon the legs, confirmed the truth of his confession.

In some patients, of peculiar idiosyncrasy, the use of the iodide of potassium, for a few days only, has been known to create swelling, soreness, and lumps upon the tongue, closely resembling true syphilitic tubercles. These conditions of the organ will generally subside immediately on the withdrawal of the medicine. I have known the presence of artificial teeth give rise to injuries of the tongue, which, judging from appearances presented by the member, apart from all other considerations, could not be distinguished from venereal accidents. I have seen two such instances within a year, and have met with others in the course of my practice. The individuals have usually been pale, delicate, dyspeptic females. In the two last cases to which I have alluded the edges of the tongue were ulcerated in several places. Both patients were married women. Both knew that their husbands had suffered from syphilis in former days, and both entertained an abiding fear that their lingual difficulty was due to the ancient delinquency of their recreant lords.

The sides of the tongue are sometimes affected with small ulcers, having well-marked indurated edges, as a consequence of long-continued attrition against the sharp fragment of a decayed tooth. These sores bear a close resemblance to syphilitic ulcers occupying the same localities. Their occurrence demonstrates and enforces the importance of always ascertaining, by careful examination, the state of the teeth before we decide upon the character of the lesion thus situated.

The internal use of mercury will sometimes occasion superficial ulcerations upon the tongue, or even severe glossitis, while the gums and salivary glands remain undisturbed by the medicine. A knowledge of the entire history of the case and its treatment will enable the surgeon to judge of the precise nature of these abnormal conditions, and to determine whether they are mercurial or syphilitic.

The most frequent syphilitic affections of the tongue consist in superficial abrasions, of various extent and shape, and situated on the dorsum, among the circumvallate papillæ.

They do not appear to extend much, if any, deeper than the base of these papillæ. The diseased surface is of a fiery red color, if the epithelium has been removed; but sometimes this delicate covering is only partially detached, and may be seen rolled up into minute, loosened granules, and resting on the excoriated organ, giving it a mixed color of white and red, or perhaps yellowish white.

Another lingual trouble, of venereal origin, is occasionally met with. I refer to sinuous fissures, which form on the margin or dorsum. They are of various depths. Sometimes they are mere superficial cracks; sometimes they penetrate two or three lines, and exhibit irregular, ulcerated edges. In other instances no ulceration can be detected. The parts have very much the appearance of a small incised wound made by a sharp cutting instrument. This breach of continuity is frequently associated with tubercles in some portion of the buccal cavity; but it may be the only specific symptom complained of. It is, in most cases, a source of no little annoyance to the individual, who can neither eat nor converse with comfort or freedom. I have at this time under treatment a young man who had, a year or two since, constitutional syphilis, and has now several rhagades, or clefts, running parallel with each other across the tongue, on both sides, opposite the molar teeth. They have existed for more than ten months. The patient has no other venereal manifestation. The chlorate of potash has proved particularly beneficial in this case.

When my attention was first directed to these sulci, I could scarcely persuade myself that they were syphilitic, but suspected they were caused by friction of the tongue against the teeth in some patients, and in others, who used tobacco, I attributed them to its influence. The affection is occasionally attended with a slight oozing of blood from the diseased surfaces.

Treatment. — These fissures are often difficult to cure. The ulcerative process extends farther than might appear from slight inspection, and I have known this complaint to resist every remedial appliance for several months. The solid nitrate of silver, used daily or every other day, will sometimes cause the ulcerated walls to close up and heal kindly in a very short

time. In other instances, its employment is productive of no benefit. The chlorate of potash, both as a gargle and internally, is generally useful; so also is the compound tincture of iodine brushed over the parts two or three times each day.

Sometimes the patient complains of a constant dull pain in the part. In such cases the following lotion may be employed several times during the day, by means of a small camel's hair pencil: —

℞.	Extracti Opii Aquosi, ...	gr. vj.
	Aquæ Ferventis, ...	ʒ iij.
M.	Cola, — et adde,	
	Mellis Communis, ...	ʒ ij.
	Tincturæ Myrrhæ, ...	ʒ vj.

The undiluted tincture of myrrh, the compound tincture of lavender, the aromatic wine, with tannin and opium, a weak solution of the potassio-tartrate of iron, may all be employed. If the complaint show no disposition to progress towards a cure under the influence of one of these topical remedies, another and another must be experimented with, until a favorable effect is realized.

Allusion has been made to the fact that nearly all the syphilitic lesions of the skin have their analogies in the mucous membranes; and, accordingly, in addition to the phenomena already specified as invading the mouth, we find the deep, excavated ulcer, the inflammatory ulcer, the sloughing ulcer, the ragged ulcer, the chronic ulcer, the creeping serpiginous and superficial ulcer; all which may attack any part within the buccal cavity, as the uvula, the fauces, the tonsils, and the pharynx. The ulcers that appear upon the palatine vault, or on the fauces or pharynx, do not ordinarily penetrate these parts to any great extent; those that come upon the tonsils eat their way through these glands in a very irregular manner, and cut out excavations of all depths and sizes.

Sloughing Ulcerations — are among the most formidable accidents that seize upon the mucous membrane of the mouth and throat, especially when seated upon the posterior walls of the pharynx. These ulcerations may form either in the secondary or tertiary period of syphilis. Their disposition is,

invariably, to extend in all directions. Downwards, they proceed towards the œsophagus and rima glottidis, always interfering with the act of swallowing, and, in some instances, exciting the most agonizing dyspnœa. Backwards, the ulcerative process may attack the bodies of the cervical vertebræ, and induce caries; and in its upward course, it will advance toward the nares, involving the fauces, tonsils, and the soft palate. In some cases the morbid action, which has its origin in the mouth or throat, produces closure of the Eustachian tube, and, extending along its whole course, reaches the lining membrane of the tympanum, which becomes inflamed, and the result is irremediable loss of hearing. I have, while writing this, a patient under treatment for tertiary syphilis; and among the hydra-headed symptoms that every now and then arise in the case is ulceration, which commenced at the back of the pharynx and subsequently spread to the adjacent parts. For about a year past the primary seat of the ulceration has remained sound; but the disease still lingers in the parts above. The left Eustachian tube is implicated; and loss of hearing in the corresponding ear has existed for more than six months. It is a well-marked case of syphilitic deafness. The patient is a young female, and has suffered from specific symptoms of one kind and another for more than six years, with an occasional truce of a few weeks.

Secondary sloughing ulceration of the pharynx sometimes gives rise to a catenation and severity of symptoms which it is not in the power of human language to describe. In these extraordinary cases the patient is doomed to suffer intensely from constitutional irritation. The pulse sinks to an extreme degree of feebleness, the skin becomes hot and dry, there is unceasing pain in the throat and chest, with a sensation of impending suffocation, which any attempt at deglutition exasperates, and renders still more alarming. The morbid process, as already stated, extends in every direction, involving the tissues in one continuous, ulcerating surface. Among the important structures thus engaged are the epiglottis and the larynx; and the patient is then tormented with fits of coughing, accompanied by a constant secretion of thick, viscid saliva, which adheres firmly to the throat; expectoration becomes difficult; so much so that he thrusts his fingers into his mouth to pull

away the ropy mass, and thus save himself from suffocation. By day there is a ceaseless inclination, but without the ability, to vomit; and during the night the throat is clogged every few minutes by the incessant discharge, and he is, consequently, not only deprived of sleep, but thrown into great distress. The power of speech becomes more and more feeble, until, at length, complete aphonia supervenes. Day after day the symptoms assume a more desperate character, until the sufferings of the miserable victim finally become terrific. He can neither eat, drink, nor sleep, and he falls into a condition from which no human skill can rescue him. I have seen a few instances of this description, the last of which occurred about two years since in this city. The agony, bodily and mental, in the case, was so unremitting and dreadful, that the patient often begged for chloroform to put an end to his existence. Reduced nearly to a skeleton, he sank at last under the weight of his accumulated miseries.

Those of my readers who have had an opportunity to observe from day to day the symptoms of an individual struggling with the variety of pharyngeal ulceration, the prominent effects produced by which are here given, will bear witness that the description is not couched in the language of hyperbole. Thirty or forty years ago such cases were far more common among venereal patients than they have been since a more simple and rational treatment has characterized medical practice.

Treatment. — This resolves itself into local and general, as is the fact in nearly all venereal affections.

In the diversified syphilitic ulcerations and other morbid conditions of the mouth and throat, topical remedies, although for the most part of secondary importance, are nevertheless of great value; and the patient will not be content without recourse to them, nor should the surgeon. In the selection of the most appropriate local means, by which to establish and keep up healthy action in the affection now before us, the professional attendant will often find his highest skill put to a severe test.

Nitric Acid. — *For sloughing ulcers* the concentrated nitric acid is justly re an excellent topical remedy.

It is suited to a majority of such sores. If the surgeon desire to touch it upon the tonsils, fauces or any part nearer to the oral aperture, a small bit of sponge, secured to whalebone and slightly wet with the acid, should be used. The utmost care must be observed not to have any dripping of the fluid. After moistening the sponge, it will be well to squeeze it against the cup or gallipot, so that there shall be no danger of a particle of the caustic falling where it is not wanted. The medicated sponge is to be carried forward directly against the ulcer, and withdrawn as quickly as possible. A tumbler-full of warm water should be at hand, that the patient may use it as a gargle at once. The surface touched with the acid will now present a white aspect, which is evidence that it has done proper execution. After one or two trials, the young surgeon will feel at ease in performing this not unimportant operation, which he should always take a pride in doing well. If the posterior surface of the pharynx be the seat of disease, and if the application of the escharotic be made there, the operation is not so simple as when performed on the parts just spoken of. This is true at least so far as relates to the patient.

In spite of all precaution it will sometimes happen that the dense vapor generated while the acid is being applied will excite exceedingly unpleasant symptoms. While the surgeon depresses and confines the tongue with a spatula or spoon, for the purpose of gaining free access to the distant walls of the pharynx, the patient cannot always have perfect control of the respiratory apparatus. The head is inclined backward, and the epiglottis and its immediate dependencies are not in a normal position. The heavy fumes of the acid may gravitate upon these parts, which may be instantly stimulated to a most violent spasmodic action, threatening the life of the patient. Some writers give us the caution to wait until the fumes of the acid pass off from the sponge before applying it; but if it be merely damp, there is still a liability to serious mischief from particles of vapor lodging where they ought not. I speak from experience. I once had under my care a young medical gentleman with extensive ulceration upon the pharynx, to which I applied the acid with a probang, the sponge being not so large as a common chestnut. This was done every second or third

day, for two or three weeks, care being always taken to have the sponge acidulated in the slightest manner possible. The fumes at length occasioned a good deal of irritation, coughing, and distress in breathing. At each successive trial these unpleasant effects increased, until it became impracticable to use this topical remedy, although it exerted a favorable influence upon the ulceration. The last application was made with great prudence and gentleness, but it instantly produced intense agony and alarm. For a moment it almost seemed that the patient must expire. I am sure these untoward effects were caused by the vapor, and not by any excess of the acid. The compound tincture of Benzoin was substituted, and the fruits of its good service in maintaining healthy granulations upon the ulcerated parts were soon manifest. It was applied thrice daily for three or four days; subsequently, only twice a day, and by the patient himself. Where it is proposed to touch the nitric acid to the posterior surface of the pharynx, I think it should be diluted with two or three times its quantity of water. The numerous trials, however, which I have now made with the Benzoin tincture, and the prompt and beneficial results that have uniformly been obtained, have weaned me from the acid as a topical remedy in the disease under consideration. The unmitigated harshness of the latter substance, and the danger invariably attending its most cautious employment, will deter me from using it upon the *pharynx*. The Benzoin is about as safe as so much cold water, and, as a curative agent in such cases, I know not where to look for its superior. *The compound tincture of Benzoin* has lost none of its ancient *prestige*. It was formerly known as Traumatic Balsam, Wade's Balsam, Friar's Balsam, etc. In its immediate local effect it is moderately stimulating, and as a reparative to ordinary sloughing ulcers, wherever situated, I regard it as possessing great merit. It was once a popular application for recent wounds,—to which, it is scarcely necessary to say, it is injurious, as it would excite too much inflammation, and thus prevent union by the first intention. As a local application to the pharynx it can be intrusted to the patient's management with safety. If a few drops happen to be swallowed no harm can result.

CASE. — *Sloughing ulcer of the pharynx — compound tincture of Benzoin employed — cure.*

April 7, 1856. The patient was a married lady, of education and high social position, aged 28 years. She was extremely pallid, thin in flesh, and dejected in spirits. Four years ago she received the primary inoculation from her husband, who lived everywhere. She had secondary eruptions and ulcerations more or less upon the skin for three years before I saw her. When she first consulted me, there was inflammation and hypertrophy of the fauces, and a few vegetations of the size of kernels of wheat had sprouted upon them. The posterior surface of the pharynx had been the seat of similar growths, except, as she reported, that the latter had a larger base than those on the fauces. They were, doubtless, broad, flattened, mucous tubercles. A few slender excrescences were also hanging from the velum. At the date above specified an extensive ulcer occupied the pharynx, giving much discomfort and pain, and occasioning serious impediment in deglutition, especially when she attempted to swallow solid food. The skin was free from disease, although numerous cicatrices, occasioned by former ulcerations, were imprinted upon the extremities.

Mercury had been administered at different times; but there was no evidence that ptyalism had ever been induced. As a local appliance to the pharynx, the compound tincture of Benzoin was selected. At first it was used twice daily, by means of a bit of sponge secured to a stick. In two days the ulcer acquired a decided reparative action. In ten days the patient, who resided some thirty miles from the city, was allowed to return home, with instructions to use the tincture two or three times each day, — which she did. She complained of very little inconvenience from the immediate impression of the tincture. In a few weeks the ulcer was healed. For the removal of the abnormal growths upon the fauces a few touches with the concentrated nitric acid proved sufficient.

The administration of the potassio-tartrate of iron in the infusion of gentian, associated or alternated with the iodide of potassium; opium to quiet any occasional pain and irritability of the system, and to secure refreshing sleep by night; quinine, decoction of sarsaparilla, decoction of yellow dock root, gener-

ous diet, wine, porter, warm bathing, and the pure air of the country, constituted the general therapeutics in the above case. No mercury was employed, either locally or otherwise, whilst the patient was under my care. She improved gradually, and without experiencing any relapse, until she acquired a tolerable measure of health, although by no means equal to that of former days.

A few months after the date given in the preceding instance, another of similar character came under my charge, although the ulceration did not occupy the pharynx.

September 7, 1856. — Patient Mrs. B., aged 32 years. Twice married. Infected with primary disease six years ago by her first husband; knows she had chancre. Reports that she never had any cutaneous eruption, nor other abnormal condition of the skin, except what was then apparent. Large, dirty yellow blotches covered most of the integument of both thighs. The discoloration gave no inconvenience, and never had. It had existed, according to the patient, nearly four years. No marks of papules, pustules, or ulcers, to be discovered on any portion of the skin. The complexion, originally fair, had now a mottled appearance; integument, generally, felt harsh and dry; and a furfuraceous exfoliation of the epiderma of the upper extremities, between the shoulders, upon the chest and face, presented itself, although daily ablution was practised. The patient was a short, stout-built woman, but complained of great lassitude, pains in the limbs and head, loss of appetite, and extreme difficulty of deglutition. She was unable to swallow a particle of solid food, and had lost eighteen pounds of flesh in six months. The vocal apparatus was so mutilated that she could scarcely enunciate her words so as to be understood. She stated that she had taken large quantities of mercury at different times under the direction of physicians, and had suffered from salivation. Upon examination of the mouth, a large portion of the fauces, the tonsils, and soft palate was found to have been destroyed, and the buccal cavity presented a hideous look. How much of this extensive destruction was due to mercurial action, and how much to the syphilitic poison, could not be determined; but the fact that the skin had never been disturbed by

any papular, tubercular, or other morbid condition of a serious character, led me to doubt whether all the mischief which had happened within the mouth was chargeable to the latter cause.

The constitutional treatment in this case was almost precisely like that adopted in the preceding. The only topical remedy to the ulcerated remains of the palate and the fauces was the compound tincture of Benzoin. The employment of gargles was impracticable; they could not be retained in the mouth. The moment the head was raised all fluids would descend into the œsophagus. The patient resided about an hour's ride from Boston. She reported herself from time to time. From the 7th of September to the 1st of the following January, she gained in weight *twenty-five* pounds, and at this latter period the diseased surfaces were healed. An ingenious artisan constructed a metallic palate, which the patient has worn nearly the whole time without inconvenience. She remains well, and eats, drinks, and converses without difficulty.

The sponge or rag-swab employed for applying the tincture of Benzoin very soon becomes hard and unfit for use, but the patient can easily keep himself supplied with a fresh stock.

My experience with the Benzoin is limited to old, atonic ulcers, and to secondary phagedænic or sloughing ulcers. In the treatment of *primary* phagedænic, chancrous sores, I should question its utility. For these the concentrated nitric acid or the saturated solution of potassio-tartrate of iron is to be preferred.

GARGLES. — In cases where the compound tincture of Benzoin is employed repeatedly during the day, it is seldom necessary to resort to gargles. In some instances, however, the latter are required; and there are several formulæ that prove beneficial in various kinds of ulcerations within the mouth. A solution of the chlorate of potash, of different degrees of strength, has already been sufficiently noticed. A decoction of the sophora tinctoria (wild indigo or indigo-weed) makes an effective gargle for aphthous and other ulcers of the mouth, whether syphilitic or mercurial. The bark of the root is the part to be steeped, in the proportion of one ounce to the pint of water. The oxymel of subacetate of copper, diluted with water, is another prepara-

tion that will be found excellent. The following is the strength generally to be employed: —

℞. Oxymellis Cupri Subacetatis, ... ʒ ij
Aquæ Fontanæ, ... ʒ vj.
M. ft. gargarisma. To be used repeatedly during the day.

Another: —

℞. Decocti Cinchonæ Corticis, ... ʒ x.
Acidi Hydrochlorici Diluti, ... ʒ ij.
M. ft. gargarisma. To be used two or three times a day. The mouth should be rinsed with warm water immediately afterwards.

A mixture of cinchona and opium furnishes a valuable wash and gargle in all cases of sloughing ulcers within the mouth; also where there is a disposition in the part to degenerate into a gangrenous condition, as is sometimes seen in the side of the cheek, the gums, etc.

℞. Corticis Cinchonæ Rubræ, ... ʒ ij.
Aquæ, ... ʒ xij. M.

Boil down to eight ounces, and add one scruple of the watery extract of opium. Filter. To be used *ad libitum*.

If the under surface of the tongue be ulcerated, a small piece of English lint, soaked in weak chlorinated water, should be kept in contact with it.

Constitutional Remedies. — The brief epitome of the general treatment pursued in the two last cases reported, together with what has been advanced elsewhere in preceding pages, will, I trust, sufficiently indicate the views I entertain relative to the constitutional measures when sloughing ulcers exist in the mouth. The use of mercury, while the patient has the misfortune to be struggling with such an affection, seems wholly uncalled for, and, in a majority of cases, would be sadly disastrous. He is sufficiently miserable without the hazard of becoming still more so by its action; and in such a juncture the practitioner should study to spare the poor victim any exposure to causes that might provoke a serious aggravation of symptoms. Mercury, therefore, should be withholden. But when the pa-

tient comes to us with other venereal symptoms, which have been mentioned as appearing within the mouth and throat, and we are sure they are such, our inquiry should be, when we are about to prescribe, whether mercurials have been administered and have had a fair trial. If they have not, and if the constitution of the patient appears to be in a favorable condition, so that he can bear the remedy with safety, then the bichloride, to the amount of one-eighth or one-tenth of a grain, morning and evening, may be prescribed in combination with tonics, sudorifics, and a generous diet. The effect of mercury, even when administered in small quantities, must be carefully watched; otherwise a sore, which is not of a sloughing nature, may become so, especially if it be located on the soft palate, or the inside of the cheek. If mercury in any form has been given, the iodide of potassium should be our chief reliance; for it will probably turn out that the case is either far advanced in the secondary period, or is what syphilographers style in the transition-stage between secondary and tertiary syphilis. At any rate, if mercury has been tried, and has failed to cure, the potassium will be well adapted to the case. It can be alternated, if the physician choose, with large quantities of the potassio-tartrate of iron; that is, one of these preparations may be given for two or three weeks, and then the other. Nitric acid, quinine, and sarsaparilla are to be administered in some cases as auxiliaries.

In regard to local measures which may claim confidence, the formulæ inserted under the head of *sloughing ulcers* will furnish the mind of the judicious medical attendant with ample resources from which to make appropriate selections, according to the different varieties and phases which the ulcerations may present. If the consecutive phenomena now under consideration are seen at an early period, they can usually be subdued without difficulty, and the probability of their reäppearance in their original severity is not very great, even if they return at all. For the twofold purpose, however, of guarding the system as far as possible against a recurrence of these symptoms, and of protecting it against any tertiary phenomena, the potassium and potassio-tartrate of iron should be continued for four or five months in moderate quantities, and with occasional intermissions of one or two weeks.

If a long period has intervened since the advent of these secondary lesions, and if the constitution has become, as it were, saturated with the syphilitic poison, which may be known by the concomitant symptoms on the skin, by nocturnal rheumatic pains in the bones or joints, by the falling out of the hair, by the pale, emaciated, and shrivelled features, by the soft, adynamic state of the muscles, and by the serious deterioration of the general health, — all which are indications that tertiary affections are about to appear, — then our anticipations in the case will be any thing but favorable. However judicious the line of treatment, and however successful for the time being, the disease will manifest a viability not inherent in any other malady; and the chances are that, before many months have elapsed, the patient will again present himself with the necessity upon him of once more testing our skill; or, what is quite as possible, some professional neighbor may be called upon to occupy our post.

Larynx. — When a patient has for a long period suffered from constitutional syphilis, he is liable to become affected with various morbid conditions of the larynx. The local affection may be simply a catarrhal congestion, or it may advance to an intense inflammatory action, resulting in extensive ulceration and consequent loss of substance. There is copious expectoration of fœtid purulent matter, mixed with blood; and if the morbid action is not arrested at an early period, the glottis, the cricoid, and other cartilages, are either totally destroyed, or, as has been noticed in some fatal cases, are found in a state of caries and necrosis.

In some instances soft, whitish, irregular tubercles, or condylomata, are formed upon the surface, together with œdema and gradual thickening of the mucous and sub-mucous tissues, involving more or less the inter-cartilaginous portions of the vocal cords, and producing hoarseness, cough, stridulous breathing, dysphonia, or even total loss of voice. Under these abnormal circumstances, as may be seen with the laryngoscope, the diameter of the laryngeal canal is very much diminished by the tumefaction of its walls. This narrowing, or contraction, is termed *syphilitic stenosis*, and is seldom influenced by the use of any local remedies. Occasionally the application of nitrate of sil-

ver, or a weak solution of the bichloride of mercury (one grain to the ounce) has proved efficacious; and in one instance which recently occurred in the London Hospital, under the care of Mr. McKenzie, great improvement appeared to result from a "pulverized solution" of perchloride of iron, which the patient inhaled. The strength of the solution was in the proportion of five grains to the ounce.*

The iodide of potassium is the most promising constitutional agent for subduing these laryngeal phenomena, which belong partly to the secondary and partly to the tertiary group of symptoms.

* London Medical Times and Gazette, March 5, 1864, p. 253.

CHAPTER XXXIV.

SYPHILITIC DISEASES OF THE NOSTRILS AND NASAL FOSSÆ.

THESE accidents require but a brief special notice. They usually appear subsequently to the affections which implicate the tongue and buccal mucous lining. In some instances they can be properly reckoned among the more tardy secondary symptoms; at other times they are to be included in the tertiary group.

The ulcers that form within the nose, under the influence of the syphilitic diathesis, present two varieties; the first being superficial, and confined to the mucous surface; the other penetrating more profoundly, and destroying not only more or less of the soft parts, but also attacking and demolishing the cartilaginous and osseous structures, and producing consequent irreparable deformity of the features, impairment of speech, and abolition of the sense of smell. These effects are not unfrequently witnessed in patients who, either from neglect or necessity, have failed to receive proper medical attention.

The symptoms of morbid action are usually developed in a very gradual manner, and, in many instances, exist for several months before they excite alarm or even suspicion. At first the patient discovers a little tenderness of the Schneiderian membrane, with a sensation of soreness within the nasal passages, and a slight impediment to the free transit of air in the process of respiration. At this early stage there is no fixed pain in the parts, and the individual merely has occasion to employ the handkerchief, and make a little extra effort to dislodge any accumulations which he thinks may have been secreted in consequence of a cold. Sometimes no abnormal exudation occurs

until several weeks have passed, when ulceration takes place in some portions of the mucous tissue. The discharge is small in quantity, and consists in a heterogeneous compound of blood, pus, epithelium, and *débris* of the parts that have been destroyed. It exhales a most offensive odor. Sometimes it concretes upon the ulcer, and is dislodged in the form of a dark, dry, thick scab. The natural tones of the voice become altered as the morbid process extends, and the patient, perceiving that what he regarded as a cold has taken a singular turn, at length applies for advice. This is the simplest and most superficial form of ulceration which occurs within the nasal apparatus. It belongs to the secondary accidents, and is sometimes coexistent with cutaneous affections of the same chronological epoch in the history of the syphilitic disease.

A favorable prognosis may usually be entertained. With ordinary skill on the part of the practitioner, and prudence and care on the part of the patient, the affection above described may be healed in a short time. But when ulceration within any portion of the nasal organ appears as a tertiary symptom, our anticipations will be of a different complexion. The patient will probably survive this local affection; but the chances are that the cartilages and bones of the nose will be destroyed to an extent that will result in a most repulsive deformity, and render him utterly wretched for life.

The abnormal action is remarkable for the exceedingly slow rate of its progress. The soft parts may remain in a merely hypertrophied state for weeks and months without yielding any morbid exudation, and the complaint may appear to be nearly stationary. In time a slight but fœtid discharge is noticed, containing perhaps small osseous fragments detached at distant intervals from one of the turbinated bones, from the ethmoid or vomer. These facts will show, with sufficient plainness, that ostitis exists, with ulceration of the soft coverings of the bones. The two lesions often accompany each other; and the medical practitioner who has had much experience will regard such a condition of things with profound apprehension. The disorder, as thus developed upon these parts, may continue its ravages for two, three, or four years, notwithstanding his unremitting and most judicious efforts, and terminate only with a total loss of the whole interior of the nose. The complaint

patients who complain of this local trouble, which, in very many instances, is but the sure harbinger of a more profound mischief that awaits the ill-fated organ.

If the periosteum and bones are involved, the constitutional treatment will form a difficult problem for the consideration of the wisest practitioner. The symptoms in these cases are so remote from the original specific lesion which gave them birth, that mercurials must be excluded from the calendar of therapeutics; for they would only augment existing evils. Indeed, there is reason to believe that caries and exfoliation of the nasal bones are not always produced by the exclusive agency of the syphilitic poison, even in venereal patients. In many instances these shocking results have been induced in part, if not wholly, by the previous injudicious administration of mercury.

Of tertiary syphilitic affections of the nose I have met with a goodly number of cases. I have seen them most frequently in the foul wards of our public charitable hospitals, the final refuge of so many victims of both sexes, who are reduced to the last extremity of wretchedness. The facts I have gleaned in connection with this form of disease have almost brought the conviction to my mind that, in very many instances, it is but little benefited by any medicinal remedies. All the tissues that constitute the organ may continue for years to be the abode and the prey of the venereal element, while no other portion of the physical system is absolutely implicated. The external integument of the nose, the mucous membrane, and the periosteum, yield up their substance little by little to the morbid encroachments; and the fragile bones become denuded, perforated, and eroded by the same destructive process, which, whether any attempts are made to arrest it or not, seems to advance at about an equal pace. The work of demolition progresses without pain and with almost inconceivable sluggishness, showing itself at distant intervals in decrements of a solitary granule of bone, or in a microscopic relic of soft tissue, dislodged from the diseased locality, together with other effete matters.

The exhibition of the iodide of potassium alternately with the potassio-tartrate of iron, a nutritious diet, residence in a wholesome atmosphere, and the inculcation of regular habits, constitute a code of treatment which should be recommended in this deplorable condition of the syphilitic patient.

The mucous membrane of the ear, the eye, the genital apparatus, the anal region, etc., is obnoxious to secondary lesions. It would, however, be but a needless repetition to go into a separate consideration of these several varieties of local manifestations. They all have a general similitude of type and development, and require no important modification of the constitutional or topical measures already enumerated.

CHAPTER XXXV.

SYPHILITIC IRITIS.

THIS affection was formerly attributed to the physiological action of mercury, but is now known to be one of the manifestations arising in consequence of the venereal contamination, and to exist, in many instances, where mercury has constituted no part of the treatment for the cure of the original disease. The German oculists were the first to discover this fact.

The disorder frequently arises in conjunction with secondary phenomena on the skin or mucous membranes, and must of itself, in such cases, be reckoned as a secondary accident. It sometimes, however, makes its appearance at a very late period, while the patient is afflicted with periosteal and other well-marked tertiary affections; and, when thus associated, it is proper to regard it as a tertiary lesion. The distinction here given is somewhat important, especially in relation to treatment. The therapeutics adapted to the former group of symptoms may not be suited to the latter. For instance, cases of iritis, occurring while the skin is more or less covered with syphilitic papules or tubercles, may do well under the influence of mercurials; whereas the same ophthalmic symptom, developed at a more advanced period of the specific disease, and as a sort of tertiary vestige, would do better under the use of iodide of potassium and other tonics.

The complaint may exhibit an acute or a chronic type from its earliest stage, or the chronic form may supervene upon the acute.

The term "iritis," as signifying a distinct malady, has been objected to by some eminent surgeons, because other structures besides the iris are implicated in the morbid processes. They regard the attack as a profound ophthalmia.

Iridal inflammation may attack one eye or both at the same time. One of the earliest appreciable effects consequent upon

this morbid action is an impairment or even total loss of sight. This result is, in some instances, manifest within twenty-four hours from its commencement. A great change is wrought in the natural appearance of the eye, in consequence of the effusion of lymph into the anterior chamber and into the substance of the iris. As the disease advances, this membrane is more or less concealed by a fibrinous deposit occurring in nodules or tubercles of a brownish tint, and collecting in greatest abundance near the pupillary margin, which is thickened and more or less corrugated or scalloped. In some instances, these tubercular excrescences become quite organized with vessels and degenerate into minute yellow abscesses. The latter frequently burst, and the matter settles at the bottom of the anterior chamber, constituting what is termed hypopium. The inflammatory process involves the whole parenchyma of the iris, the surface of which may sometimes be seen dotted with particles of extravasated blood. Adhesions are very liable to form at different points between the ciliary border of the iris and the capsule of the lens. They often acquire considerable firmness, and the liberation of the iris, by the employment of belladonna, is a work of no little difficulty. There is distortion of the normal figure of the eye, and a corresponding irregularity in the shape of the pupil, in consequence of some portions of the iris being confined to the capsule, while other portions remain free.

Occasionally, adhesions are formed between the whole circular edge of the iris and the capsule, and what is called capsular cataract is the result. In April, 1854, I saw a case of this kind in a woman who had been under the care of a quack for secondary syphilis. The right eye had been attacked with iritis about one year before I saw it. The complaint lasted but a short time. The cornea was not injured. The pupil was contracted, and the iris apparently cemented to the capsule, which was covered with a dense fibrous membrane, and the function of the organ was totally destroyed.

In some severe cases all the textures are involved, until finally the entire visual organ is converted into a mass of irreparable disease. When the attack occasions such phenomena, one may well question the propriety of regarding it simply as an iritis.

Where the morbid action pursues its career rapidly, it is attended with pain, which occurs in paroxysms usually marked by their greatest severity during the hours of night. But if it be chronic from the commencement, it is rarely attended with much suffering. In some instances it is so insidious and gentle in its approach and development, that the individual may lose the use of the eye unconsciously, and before he is aware of any abnormal condition of the organ; especially is this true if the patient be engaged in some employment requiring no special exercise of accurate vision. Now and then the complaint will disappear spontaneously without the use of remedial means from the surgeon.

Although iritis may be subdued, and the organ restored to its natural appearance and functions, there is for a long time great liability to relapse.

In the month of December, a few years since, a patient under my care for consecutive papular eruption, had an attack of iritis, in consequence of an exposure of several hours, which he spent in riding in an open vehicle, on a cold afternoon. The ride was one of pleasure, and was taken contrary to advice. The patient was a stalwart, daring man, of great natural powers of endurance, and his general health was tolerably good at the time. But, as the result of his imprudence on this occasion, a severe inflammation of the right eye commenced on the following day. For some weeks he had been taking the bichloride of mercury. This was now laid aside. A saline cathartic was prescribed; after the operation of which, the patient was put upon the use of Ricord's pill of the proto-iodide of mercury, and the gums kept tender. For more than two weeks the ophthalmia was acute and painful. For the relief of the latter symptom fomentations of popy-water were directed, and proved entirely adequate. The malady became chronic and intermittent. Vision was nearly lost and restored several times during a period of six months. The eye finally regained its natural state.

Diagnosis. — The differences between the syphilitic variety of ophthalmia and the arthritic or strumous form, are not sufficiently marked to constitute a rational basis for diagnosis. The medical attendant can rely with safety only on a true his-

tory of the antecedents and the concomitants of this local trouble.

Generally speaking, it may be stated that the deviation from the normal color of the iris, loss of its brilliancy, and striated appearance, are more observable than in the non-specific varieties of the complaint. The capillaries exhibit a greater disposition to deposit lymph, and the pupil is more irregular and turbid, than in the rheumatic or strumous form of the disease.

Slight cases of corneitis may be mistaken for iritis. In severe and aggravated instances of the former, the opacity and vascular excitement, conspicuous in the superficial structure, almost exclude the possibility of mistake; but where the inflammation of the cornea is mild, a mere dulness of this membrane takes place, closely resembling, on slight inspection, dulness of the iris. But, on a more careful and exact examination, the medical observer will perceive, from every available point of view, that in iritis the loss of brilliancy seems to be deep-seated and uniform. In inflammation of the cornea the haziness is seen to be superficial; and in most instances some portion of the corneal texture remains transparent, and through this the iris may be examined. If the pupillary motions are found to be active, — dilatation and contraction being rapid, — there is satisfactory proof that the iris is sound.

Ricord considers that the great peculiarity that separates this form of iritis from arthritic inflammation of the same part is the eruption which, in the syphilitic variety, takes place upon the iris, and which, he believes, bears as great an analogy to the cutaneous eruption as the anatomical differences of the two regions permit; that is, if papules exist on the skin, they will be found on the iris; and if a vesicular eruption be present on the former, true vesicles will be detected on the latter, and so on. That these analogies usually prevail, I will not take it upon me to doubt; but will add that I have recently met with two instances in which there was no venereal eruption, although there had been only a few months previously. In one of these the mucous membrane of the mouth was affected with secondary lesions simultaneously with the iritis. The other was accompanied by tertiary manifestations in the joints, the periosteum, etc., and the iritis was of a sub-

acute type, and of which the patient suffered several relapses. At my request, Dr. H. W. Williams, of this city, saw the case in consultation. A tonic course of treatment, without mercury, was pursued, and the organ was finally restored to a healthy state. The patient had *never* taken any mercurial with a view to cure the ocular disease.

TREATMENT. — For the removal of this local complaint, the mercurial treatment has for many years been regarded as "the sheet anchor," by the great mass of practitioners. The submuriate is the form usually preferred. The subjoined formula is perhaps as appropriate as any that can be selected in cases where the medical attendant has decided upon its employment. But no fixed rule can be laid down : —

℞. Pulveris Opii, ... gr. xv.
Hydrargyri Chloridi Mitis, ... ʒ iss. M.
Ft. pil. No. lx.

DOSE. — One pill thrice daily.

As the disease yields, the pills may be taken less frequently. As soon as the mouth or breath indicates that ptyalism is about to set in, the quantity of mercury should be diminished, and every caution taken not to induce salivation. The remedy should be continued in quantities just sufficient to maintain a preternatural redness of the gums, and no more.

In some cases, where the individual is in tolerable health, and the local inflammation is very severe, the application of a few leeches, and the employment of a brisk purgative, before commencing with any mercurial, will be advisable. But ordinarily such preparatory measures will not be demanded. The calomel may be prescribed at once. Some surgeons prefer to combine it with the extract of hyoscyamus, for the reason that the opium may have a tendency to favor the contraction of the pupil.

The utmost vigilance will be requisite to keep the pupil dilated, otherwise permanent adhesion of the iris to the capsule of the lens may take place. The extract of belladonna should be smeared freely over the eyebrow and forehead, two or three times in the twenty-four hours, throughout every stage

out the administration of mercury would seem to cast a doubt upon the solution offered by the learned author as to the *methodus curandi* of the potent mineral. And I cannot but regard the therapeutic problem as still remaining unsolved.

After iritis is subdued, the iodide of potassium should be administered as an adjunct to the mercurial treatment, and also as a prophylactic measure against tertiary symptoms. The potassium may likewise be advantageously prescribed at the same time with the mercury, in cases of iritis accompanied with severe neuralgic pains. Such are occasionally met with, where the ophthalmia comes on at a great remove from the primary lesion. The application to the affected organ of vapor-baths will be attended with favorable results, not only in subduing pain, but likewise in disgorging the vessels of the sclerotica and the palpebral conjunctiva, which very often are highly inflamed.

While the efficiency of mercury, in promoting the absorption of lymph and preventing its further deposition, is admitted, its power in controlling different forms and different stages of iritis has probably been overrated, and it has, without question, been administered too exclusively and too indiscriminately.

If, in any given instance, there be a good share of constitutional vigor, and if the exudation retain the form of plastic lymph, or fibrine, the employment of mercury, as the chief curative agent, will afford more favorable results than any other.

Should the patient be of a scrofulous diathesis, and his constitution feeble and broken down by a long and debilitating disease; if the effusion of lymph be very abundant, and possess but few traces of organization, mercury will tend to increase the exudation instead of arresting it. It will act rather as a poison to the system than as an antidote to the complaint, and thus will aggravate the very condition of things which it was intended to remove, and which, in a less debilitated frame, it would have cured.* So, also, if the malady be developed in conjunction with distinct tertiary symptoms, the individual will be in no condition to justify a resort to mercurial preparations. In all the exceptional cases and conditions

* Vide London Lancet, March, 1855. — Mr. Critchett's Lecture.

athan Hutchinson, states that the female sex is far more subject to it than the male, and it makes its invasion at about the fifth month, oftener than at any other age of the child.

TREATMENT. — Mercury, either in the form of the bichloride in solution, in doses of one-sixtieth of a grain of the salt twice a day, or one or two grains per day of the hydrargyrum cum cretâ, with generous diet and mild tonics, will be sufficient, so far as internal remedies are required. The application of atropia should be resorted to from the commencement, and repeated every day, or every other day, according to its apparent effect on the pupil. The strength of the solution may vary from a quarter of a grain to a grain in an ounce of distilled water.

Besides iritis, the syphilitic virus produces other specific pathological changes within the interior of the eye, to which we will briefly allude. It is well known that individuals laboring under constitutional syphilis frequently lose the power of vision, while no imperfection of the organ can be discovered by the ordinary methods of examination; and it was not until the ophthalmoscope was brought into practical use as a means of diagnosis, that the deeper tissues and humors of the eye could be exposed, and their true condition determined with accuracy. By means of this instrument it has been demonstrated that the choroid and hyaloid membranes, the retina, and vitreous humor, may, one or all, be in a diseased state for a long period, with only a trifling degree of pain, and unattended by congestion or other disturbance of the outer tunics of the eye; and what is termed amaurosis syphilitica is dependent, according to Professor A. Von Graefe, upon choroiditis or retinitis.

Like iritis, the different forms of ocular disease here mentioned usually occur at a period which places them among the secondary phenomena; and their treatment should be conducted on the same general principles as are suited to ordinary cases of iritis, — tonics and mercurials. The latter class of remedies should be prescribed with a sparing hand, and the mode of their administration varied according to circumstances. Whether given internally or through the cutaneous surface, the results will be substantially the same. The latter method

seems of late to be quite popular, and mercurial fumigations and mercurial inunctions are without any reasonable objections, if the parties interested choose to employ them; although in private practice in this country, and among the better class of patients, the internal use of the medicine in question will probably be preferred.

CHAPTER XXXVI.

TERTIARY SYPHILIS.

CHIEFLY to the scientific and important investigations of Ricord are we indebted for the present classification of venereal symptoms into three separate divisions, and for intimations that even a fourth group, the quaternary, may at some future day be defined and established in conformity with the laws which, if undisturbed, control the movements of the syphilitic poison in its mysterious wanderings through the human organization. The arrangement of these consecutive phenomena into distinct periods renders their study highly interesting and satisfactory to the student, while the practitioner is enabled to conduct the treatment on principles that lead to far greater success than that obtained in former times.

The tertiary symptoms consist in certain changes that take place in the subcutaneous or submucous cellular tissue, in the testicles, in the fibrous and osseous textures, and in the deep-seated organs, as the lungs, the liver, the heart, the brain, the kidneys, etc. The serous membranes have seldom exhibited any syphilitic lesions. The affections, included under the name of gummy tubercles, or deep-seated tubercles, nodes, inflammation of the periosteum, exostosis, and caries of the bones, belong to the division upon which we have now entered.

By most writers on syphilis the fact is regarded as established that the tertiary manifestations are not transmissible by hereditary taint under their peculiar type, although, in consequence of a kind of degeneration or modification of the syphilitic virus, they are one of the most fruitful sources of scrofula. I am unable to perceive the propriety of applying the term *scrofula* to symptoms that have their origin in syphilis. It seems no more than fair and honest that syphilis should be permitted to retain undisturbed and full relationship to the multitudinous progeny which it begets. The relation is by blood; and what

duce scrofula in the child. . . . From all these circumstances I arrive at the conclusion that scrofula and syphilis are independent one of the other; that each has a character proper to itself, and that the same treatment is inapplicable to both diseases. For example, if scrofula be rife where syphilis is rare; if syphilis affects all periods of life, while scrofula is more confined to a particular period; if hereditary syphilis be manifested at or soon after birth, while scrofula unfrequently appears before the second or third year; if syphilis, whether inherited or acquired, be rarely cured spontaneously, and if, as every one knows is the case, scrofula often disappears at the approach of puberty; if syphilis usually yields to mercurial treatment, while scrofula does not, — should we not conclude that the one has no dependence on the other?"

Among the most remarkable and interesting phenomena developed within or beneath the cutaneous membrane are the

TUBERCULA GUMMATA. — These tumors usually appear at a very late period in the train of consecutive symptoms originating in a chancrous sore, and by common consent they occupy a position in the tertiary group of venereal affections. Occasionally they are formed in the substance of the skin, but for the most part they lie below the true corium, and have the subcutaneous cellular tissue for their *nidus*. Here they may remain for an indefinite period in an indolent state, without infringing upon the healthy condition of the adjacent parts. In rare instances they have been known to show themselves within a few months from the primary disease, but ordinarily they do not form until the lapse of several years after the introduction of the syphilitic ferment into the system; and comparatively but few individuals who have had chancres are ever afflicted with this variety of tubercles.

These curious abnormal bodies are hard and slightly elastic to the touch, and, when lodged where the cellular tissue is quite deep and abundant, they are movable in almost any direction; if gently felt with the thumb and finger, they seem to float, as it were, or to be suspended in the cellular substance in a loose manner. They sometimes attain the size of a hen's egg. They are called by different names, as gummata, tubercles in the cellular tissue, tubercula gummata, tumores

The patient has at times had sore throat, with pretty extensive ulcerations; the tonsils are destroyed, and cutaneous affections have existed in almost every variety of type and severity. During the past year the skin has remained sound, and the mouth and throat are now nearly so. For two or three years past, periosteal pains have prevailed at times, but have not been of an obstinate character. Ten months since, a subcutaneous, elastic, movable tumor was developed close under the base of the left nipple, and soon afterwards a similar product came on the right side of the neck, one inch below the mastoid process. The nodule on the breast increased more rapidly than the other, until it became as large as a common walnut. The one on the neck was smaller. Both were somewhat painful and more elastic as they enlarged, and in all respects corresponded with the descriptions given of syphilitic tubercles in the cellular tissue, and which, when they suppurate, give rise to the *horse-shoe or serpiginous ulcer, having a phagedænic tendency.*

The iodide of potassium is the principal remedy which this patient has taken during the last six months. The daily amount has ranged from fifteen to thirty grains, having been wholly omitted on several occasions for five or six days. The tumors have disappeared.

Case II. — In October, 1854, a young married woman, whom four years previously I had attended for severe secondary affections, presented herself, having two gummy tubercles, one on each side, just below the angle of the jaw. They were not enlarged lymphatic glands. They had existed for four months. The one on the right side was of the size of a marble, the other a little less. They caused but slight inconvenience, although occasionally they were somewhat tender and painful. They seemed to be loosely suspended in the cellular membrane, and would slip from between the thumb and finger, unless secured by a careful grasp.

In this case the iodide of potassium was prescribed to the amount of a scruple *per diem*, and in less than three weeks both tumors vanished. A few months afterwards similar growths sprung up in the same neighborhood, and the potassium was again resorted to with like beneficial results. Coetaneously with these gummata, the patient had caries and exfoliation of

partial paralysis. They have been found in the epididymis, testicle, liver, lungs, brain, bones, etc.*

In fact, no organ or tissue in the human body can escape the venereal infection. Even the nerves, the teeth, the hair, and the nails are involved. In the syphilitic subject there is a tendency to the exudation of a low form of lymph or fibro-plastic material modified in character by the organ in which it occurs. On the skin and in the mucous membranes its disposition is to soften and finally result in ulceration. On the bones it may proceed to ossification, or produce caries. On the tongue and other muscles it develops itself into hard lumps or tumors when it is not modified in its natural progress by the action of medicines. In the earlier period these nodules appear to infiltrate the part they occupy, and are comparatively soft; but after they have existed for a considerable time they become harder, more distinct and separate from the neighboring tissues; and at a still later stage they often ulcerate. These changes are frequently seen in the syphilitic tubercles or tumors that appear on the tongue.†

TREATMENT OF TUBERCULA GUMMATA.

Experience has at last demonstrated to the satisfaction of every practitioner who has much to do with the management

* "A special kind of exudation is seen in what is termed gummata. Lobstein describes it under the name of "gumma periostitis," and compares the contents of these nodular swellings, as respects their consistence, with a semi-fluid mucilage of gum arabic, and of the color of currant jelly. The seat of these gummata he places in the tissue of the periosteum itself, or, more often, between that membrane and the bone." — *Wedl's Pathological Histology*, p. 235.

Mr. Busk, in a note, remarks: "In syphilitic gummata, such, for instance, as are frequently observed on the frontal and breast bones, the contents are a glairy fluid, containing but few morphological elements. The latter consist chiefly of irregular molecules and colorless granule cells, and granular masses, often consisting apparently of oil spherules, surrounding a transparent mass; but, notwithstanding the apparently complete separation of the *periosteum* from the bone by this heterogeneous product, it rarely happens, if the case be properly treated, and the opening of the tumor be avoided, that any exfoliation takes place."

† In Guy's Hospital Reports for 1863, Mr. Wilks has communicated some interesting remarks on this subject.

abnormal sensations of a serious character, and referable to any of the vital organs or functions,—it will be important to relieve him of these annoyances before attempting the removal of any specific venereal symptoms. But as soon as the constitution has been suitably prepared for the reception of the salt in question, its beneficial influence will be realized in all cases of gummata that are amenable to any therapeutic agent. We have the experience and testimony of the most distinguished men now active in the medical and surgical ranks, all over the civilized world, to justify us in the belief that this remedial substance is entitled to hold the same position in the management of these and other tertiary symptoms that has been accorded to mercury in primary and secondary affections; and this is saying all that need be offered in praise of any ingredient in the materia medica.

Not a few medical practitioners have expressed disappointment at the results which have followed the use of the potassium as prescribed by them for venereal affections that appear at a late period. I am of opinion that the article has been employed somewhat indiscriminately for secondary and tertiary lesions, and hence the frequent failures. In presuming to submit this remark, I am willing to include myself among those who have erred in thus prescribing it. The high encomiums which, a few years since, came over from European hospitals to this country, respecting the healing virtues of the potassium in certain syphilitic symptoms of long standing, naturally excited the hopes of medical men in advance of any practical experience they had acquired of its merits; and in this country, at least, its popularity preceded its employment, and the hasty and hap-hazard administration of the salt has in many instances brought disappointment. Even in tertiary syphilis I have known patients to be put upon its use under circumstances unfavorable for the realization of any beneficial results. I could cite instances where the parties have been so situated that no advantage could be derived from salubrious air, bathing, generous diet, and other hygienic measures, the influence of which it is always so desirable and important to weave in as auxiliary in the treatment of all venereal symptoms. In such cases the medical attendant, as well as the patient, is truly unfortunate; but no maledictions should fall upon the remedy

without danger of inducing any unfavorable consequences. Even after the particular morbid symptoms, for which the potassium was given, have disappeared, it will be judicious to continue its use in small doses for several weeks, for the purpose of preventing relapses, as well as with a view of recruiting the condition of the system.

When the subcutaneous gummata yield a slight fluctuation on pressure, and the integument is not discolored, it will be proper to attack them with energetic local means. The skin may be covered with a blister, and as soon as the cuticle is detached the raw surface may be dressed with strong mercurial ointment for the purpose of encouraging absorption of the purulent collection. If fluctuation should increase, the contents of the tumor should be set free with the lancet, as all further attempts to induce absorption will not only prove abortive, but the pus, if not evacuated, will undermine the integument in every direction, and great ravages among the different tissues will be likely to occur. If the tumor be situated on the scrotum, it will be especially important to open it at the earliest moment after the softening and fluctuation are detected. The suppurating surface will require a subsequent local treatment of a somewhat stimulating character. The chloride of soda makes one of the most useful topical dressings for these unhealthy sores. The black wash, the yellow wash, the Peruvian balsam, and a solution of the potassio-tartrate of iron will all likewise act favorably.

If there be much redness and inflammation in the surrounding parts, a soothing application will be demanded in preference to one of a stimulating nature. A saturated solution of the extract of opium should be applied to the ulcerated surface for a short period, and afterwards one of the preceding remedies. In most cases the abnormal local action is of a subacute type, and the ulcerations, that are almost certain to supervene upon the opening of the gummata, present a sloughing tendency, to arrest which, stimulants applied directly to them will be most appropriate. In addition to those above named for daily use, the nitric oxide of mercury ointment will be found an excellent preparation for *nocturnal* use. The occasional employment of the undiluted nitric acid will be requisite if the ulceration extend into the soft parts.

In such cases the malady is wont to assume a formidable aspect, and it is not only necessary to resort to topical measures with the intention of destroying the phagedænic action; but our main reliance must be on constitutional treatment, which, in addition to the iodide of potassium, should consist of the free administration of the potassio-tartrate of iron, quinine, opium, wine, etc.

In the treatment of primary sores, the potassium is of no value. The same is true as regards the early stage of secondary eruptions. Cases are recorded in which this salt has been taken for many months for the cure of pustular and tubercular affections of the skin without any permanent advantage. Sometimes it will suspend or keep under such eruptions for a while, but, as soon as it is omitted, these phenomena will return as severely as ever; and, from the numerous trials that have been made with it, it appears to be a well-established fact that its therapeutic qualities are in direct ratio with the long continuance of the specific symptoms. Experience has now supplied ample proof that, under its action, *tertiary* or very *late secondary* ulcerations of the soft tissues heal rapidly, that pains in the bones are relieved or annihilated, that exostoses are totally destroyed, that extensive periostoses are arrested in their progress, that old sequestra are promptly eliminated in very many instances, and that tedious and distressing caries will dry up and cicatrize in a permanent and healthy manner.

What may be termed the more extraordinary degrees of tertiary accidents, such as are mentioned in the preceding paragraph, are seldom met with in private practice. Although I am constantly dealing with this class of accidents in all their *forms*, my experience is quite limited in regard to instances of peculiar severity. Painful swellings and plastic infiltrations about the joints, and periosteal and osteal inflammations accompanied with nodes, are the most frequent tertiary lesions I am called upon to treat. For the removal of these, my reliance is on the iodide of potassium as the great constitutional antidote. I have often witnessed with surprise the rapidity of its therapeutic action. Within three days from the commencement of its use to the amount of thirty or forty grains, *per diem*, I have known articular enlargements of several months' duration begin to decline, and

to be entirely reduced in a few weeks. In one instance lately under my care, and in which Dr. S. D. Towsend was called in consultation, the enlargement of the knee-joint was over two inches, and in three weeks it almost wholly disappeared under the influence of the iodide, which was prescribed at the rate of one drachm daily. Equally favorable results are realized when it is employed for subduing other local affections appertaining to the tertiary group; and as the remedy displays its power over these, the general condition of the system undergoes great improvement also. The tongue becomes clean, the appetite returns, the digestion is good, and the patient is very sure to increase in flesh. The data upon which these statements are predicated are derived from my own observation of the potassium in numerous cases of tertiary syphilis, in which the effects of this medicine have almost uniformly been such as to remind me of the expression of Ricord, that it is "all-powerful." And when I hear of failures and disappointments connected with its administration, I always suspect that it has been prescribed in cases not belonging to the tertiary, nor yet the late secondary period, or that it has been given in a manner or under circumstances that would render any medicinal agent nugatory.

CHAPTER XXXVII.

SYPHILITIC SARCOCELE, OR ORCHITIS.

THIS is a chronic affection. Some writers consider it a secondary venereal malady; others class it among the tertiary symptoms. I have met with it in persons who have had secondary papular and pustular eruptions at the same time, but no tertiary complaint; and I have seen it where the other concomitant affections were strictly tertiary. In one instance a man was troubled with sarcocele during secondary consecutive manifestations, and also after tertiary lesions had existed for a long time. Thus, abstractly considered, this glandular difficulty belongs to no one period of syphilis exclusively. Nor is it strictly accurate to regard it as occupying a transition state between the secondary and tertiary epochs.

The disease has been known to appear at the same time with primary chancre, and in connection with the profound abnormal phenomena that attack the periosteum and bones; and it may occur at any moment intermediate between the extremes here mentioned. This irregularity as to the times of its development has created doubts in the minds of some surgeons as to the propriety of separating venereal manifestations into three distinct divisions.

As a general rule, it may be stated that orchitis is one of the latest exhibitions of the syphilitic disease. It commences in the tunica albuginea, or the fibro-cellular tissue of the body of the testicle, and not in the tubular portions of the organ. In its incipient stage the epididymis is not involved. The numerous researches of Sir Astley Cooper have placed these facts beyond doubt. In a majority of cases both testicles are involved in the morbid action simultaneously; in others only one testis is implicated. The enlargement proceeds very gradually, is attended with only a moderate degree of pain, and the individual will allow the part to be handled without complaining.

For some time the gland preserves its smoothness and its natural pyriform or ovoidal figure; but as the disease advances it becomes globular, and assumes a fleshy feel, from which circumstance is derived the term *sarcocele*.* After a considerable period has elapsed the smoothness of the surface is slightly interfered with by prominences occasioned by the presence of tubercles, or zones, as they are sometimes called. These, however, eventually coalesce into one mass. In certain instances, where there is great hardness of the gland, it presents a somewhat irregular, lobulated appearance. As the disorder becomes still more chronic, the epididymis participates in the inflammation, and is merged in the general enlargement, so that it cannot be felt. In the generality of cases the trouble terminates in resolution, and the testicle is restored to its natural size. Now and then a slow process of foul, unhealthy suppuration is set up.† In such cases the patient suffers intense pain; but otherwise there is merely a dull, aching sensation, accompanied by a feeling of weight in the organ, as in non-specific orchitis.

Instances are occasionally reported of the disease terminating in atrophy of the gland. This condition has been erroneously attributed to the physiological influence of the iodide of potassium. The wasting away of the testicle may sometimes be the result of the specific affection, or it may arise from neglect, or from improper management, or it may be due still more frequently to some peculiar diathesis inherent in the constitution.

There is one feature appertaining to this variety of sarcocele which it possesses in common with nearly all the other constitutional venereal affections, and that is a disposition to recur. Even if the treatment have been entirely successful in removing the engorgement, the probability is that after an interval of a few months the same difficulty will return, although perhaps in a mitigated form.

* From σαρξ, flesh, and κηλη, a tumor.

† Mr. Acton is of opinion that syphilitic sarcocele never brings on suppuration; and the late Mr. Colles remarks that he could not recollect any case of what he considered purely venereal swelled testicle which went on to suppuration, although he had seen this occurrence take place in some persons where the debilitated and deranged state of the health appeared to be the exciting cause.

In former times the complaint under consideration, not so well understood as at the present day, was often looked upon as cancerous; and surgeons who were fond of using the knife were frequently too ready to relieve the patient of his testicle by castration.

In ordinary cases of orchitis, virility remains unimpaired; but if both testicles are diseased, and the morbid condition continue for a very long time, producing disorganization in the seminal tubes, then their normal function may be destroyed; a circumstance, however, which rarely happens.

Diagnosis. — The testicular engorgement generally takes place amid circumstances calculated to shield the judgment of the practitioner from any mistake as to the precise nature of the swelling. Other constitutional symptoms of a specific type will be present. Upon an examination of the patient, if such a ceremony should be necessary, tubercles, cutaneous, subcutaneous, or submucous, chronic and unhealthy ulcerations, phagedænic sore throat, nodes, iritis, scaly eruptions, or articular pains, will probably be found to exist. But if these venereal symptoms should all happen to be absent, the history of the individual for the few previous years will develop facts, a careful analysis of which will point with sufficient distinctness and emphasis in the right direction; so that the diagnosis will be rendered easy.

Pathological Appearances. — On dissection, the general appearance furnished by the syphilitic testicle exactly corresponds with that of the common chronic inflammation of this body. The glandular structure of the organ exhibits a quantity of yellow, unorganized matter, collected in small masses or deposits, possessing more or less solidity.*

TREATMENT OF SARCOCELE.

Local. — If the case be presented for treatment at an early period, and before any material structural change has taken place in the part, it can usually be restored to a healthy condition without difficulty. Should it be very painful and tender,

* Cooper, Brodie, Hamilton, Curling.

five or six leeches must be applied to the scrotum, which should be supported by a suspensory bandage. The frequent use of hot vapor or of soft warm poultices will exert a soothing influence, and likewise materially assist in reducing the enlargement of the gland. The fomentations or poultices should contain a solution of the extract of belladonna, which will add to their efficacy. The iodide of lead ointment will sometimes prove beneficial in promoting the absorption of the plastic infiltration. It will be a good practice, also, to paint the scrotum with the compound tincture of iodine every day, so as to maintain a lively counter-irritation. Blisters are serviceable where the sarcocele has become chronic. Many surgeons have great faith in the resolvent qualities of mercurial ointment. I have no objections to offer to its employment, nor do I entertain any special confidence in it as being superior to the other local appliances that have been mentioned. Its use is attended with no little trouble, on the score of uncleanliness, which overbalances any specific advantages that can be urged in favor of it, while we have at command an abundance of other resources of equal curative value.

If there be a high tone of inflammatory action, refrigerating lotions will be demanded for the time being; and the patient will likewise derive advantage from a general warm-water bath morning and evening.

Constitutional Treatment. — The iodide of potassium will prove the most beneficial medicine that can be addressed to the constitution. This salt will be especially appropriate if the orchitis be developed in patients in whom tertiary phenomena are more predominant than secondary.

In regard to the necessity or desirableness of prescribing mercury in any form or quantity, I am inclined to the belief that the general condition of things will seldom warrant such a procedure, except in the most cautious manner. Nine-tenths of the persons who present themselves to the medical man for the treatment of swelled testicles, are just the ones who cannot be put upon a mercurial course without incurring a risk which the exigencies of the case do not justify. It is far safer and better to rely upon the action of the potassium and the other remedial measures recommended in connection with this subject.

CHAPTER XXXVIII.

DISEASES OF THE PERIOSTEUM AND BONES.

Syphilitic diseases of the bones and of their investing membrane, the periosteum, are less frequently met with at the present day than formerly. One, and perhaps it might be said the chief, reason of this difference is to be found in the mild treatment which the members of our profession have of late years chosen to employ for the cure of secondary symptoms. To the exhausting effects of the immense quantities of mercury, which it was once the custom to crowd into the stomach while the system was struggling against the malign influence of the venereal poison, is doubtless to be attributed a large share of those violent and destructive morbid processes which preyed upon the bones of its subjects.

Syphilitic accidents appear most frequently in those bones that are thinly covered with muscles, and consequently exposed to varieties of temperature. Of all the bones, the tibia suffers most from tertiary affections. The cranium, the clavicle, the radius, the ulna, the inferior maxilla, the sternum, and ribs, are also obnoxious to specific pains, inflammation, nodes, tumors, necroses, and caries. It is scarcely probable, indeed, that any portion of the osseous system enjoys immunity from the effects of the disease.

Osteocopic symptoms are ushered in without any apparent exciting cause. A dull, circumscribed pain is seated, for instance, at a fixed point upon the shaft of the tibia. It does not shift from place to place, as an ordinary rheumatism; is not accompanied by redness, swelling, or increased temperature; is intermittent, and for a long period is almost wholly nocturnal. If, however, no attempt be made to annihilate it, the individual ultimately suffers by day as well as by night. Sometimes, when pressure is made upon the part, the distress is increased, — thus proving that the affection is deep-seated.

In the latter class of cases the syphilitic inflammation may attack either the medullary membranes or the cancellated structure of the long bones. Where the disease is deep-seated in the bones of the extremities, a morbid deposit takes place, accompanied with intense suffering, in consequence of the unyielding nature of the surrounding tissues; and the operation of trephining can alone give relief. Surgical experience has demonstrated this fact.

Syphilitic osteocopes are regarded by some eminent authorities as only a symptom of an affection of the bones, and not as a distinct malady. In reply to this, it may be stated that persons are occasionally met with who suffer tertiary pains for many months before any organic lesion is manifested, although in most cases these osteocopes do not continue but a few weeks before some serious derangement takes place, either in the periosteum or bone. Generally a slight tenderness on pressure is perceptible at the spot where the disease is located, and, in a short time, irregularities and periosteal enlargements, termed *nodes*, reveal themselves. These abnormal deposits are more frequently developed in persons who have been subjected to the protracted use of mercury than in those who have not been thus treated. They are seen, however, as purely venereal accidents where no mercurial preparations have been administered. They do not exhibit precise uniformity in their appearance or character, and have been separated by Ricord into three different varieties, viz., the elastic, the phlegmonous, and the plastic. Several nodes are frequently noticed on the same bone at the same time. When they thus appear they are generally of smaller size than when a solitary specimen exists. Their outlines are not always well defined. The central part is usually more prominent than the other portions of the swelling, and, as the finger follows the morbid growth from the summit towards the basal periphery, it is often difficult to trace it distinctly. Sometimes the nodes form without being preceded by a painful condition in the place from which they spring; but in most instances, as already stated, they are ushered in by pretty severe and constant pain. Nodes may remain indolent for a long period, may undergo little or no alteration, and occasion but very little inconvenience; on the contrary, they sometimes prove extremely troublesome, and are premonitory of still more

serious and profound lesions that are sooner or later to follow. In some instances the lymph, or serum, which they contain can be carried away by absorption; in others a slow process of suppuration is excited, abscesses form between the periosteum and the bone, and exfoliation of the latter, to a greater or less extent, ensues. This is particularly liable to be the case where the periostitis is situated upon some portion of the cranium. Instead of remaining soft, doughy, and painful, as in their incipient stage, they sometimes change their character after they have existed a few weeks. They acquire solidity, and cease to be painful. This solidity or hardness does not of itself indicate the composition of the nodular deposits. Mr. Stanley states that he has found what was supposed to be osseous matter to prove mere indurated periosteum. The pericranium differs from the fibrous investment of the other bones in never becoming ossified.

Sometimes the morbid action which originates in the syphilitic infection produces hyperostosis, or thickening and unusual induration of the walls of the skull, and more or less irregularity and roughness of their surface, while at the same time there is great thickening and condensation of the pericranium on the one side, and the dura matter on the other. I have in my possession an interesting specimen of this abnormal condition of the cranial bones.

Rokitansky (vol. iii., p. 198) states that upon a minute examination of a section of very compact syphilitic skull, numerous Haversian canals were discovered lying far apart, and separate groups of unusually large and black corpuscles, from which a great number of rays diverged. In a section of a piece of syphilitic skull, which appeared porous externally, but was in fact very compact, the Haversian canals were found wide, the corpuscles mostly large, and some of them placed at right angles to the canals. In the neighborhood of particular canals the innermost lamella was transparent, and contained a single row of corpuscles, but it was surrounded by a dark stratum, interwoven with very numerous corpuscles, which were thickly set with rays.

Instances have been known in which the inner table of the bones of the skull and dura mater have been diseased for a long time, while the external osseous surface has remained perfectly sound.

paralytic symptoms, with defective intelligence and memory, impaired vision, difficulty of articulation, and epileptic seizures may set in, and ultimately disappear under proper treatment. The means principally relied upon by Dr. Reid consisted in shaving the head, extensive blistering of that part, and mercury. In one of his cases, venesection, active purgatives, and tartar-emetic were had recourse to.*

Mr. Reeve, author of a work on "Syphilitic Meningitis," reports a case in which there was every reason to believe that the patient labored under compression of the brain occasioned by syphilitic tumors, developed upon the *dura mater*. He had a paralytic affection, with other cerebral disturbances of an alarming character. He could not stand upon his feet; his articulation was imperfect; his memory and ideas generally impaired; vision in both eyes was disturbed. He was known to have had constitutional syphilis a few years previously. The scalp was shaved, and covered with a blister, to the surface of which mercurial ointment was freely applied for a few days. Recovery took place rapidly. Some of Mr. Todd's cases were treated successfully with the iodide of potassium.

In my own practice I have met with one unequivocal example presenting the leading features appertaining to the cases above cited. The iodide of potassium was given largely, for a long period, without permanent benefit. The patient did well for a time, but afterwards suffered a relapse from which he did not recover. He lingered several months in an imbecile frame of mind before death took place. Softening of the brain was the principal lesion discovered at the autopsy.

The following case, which occurred at Rainsford Island Hospital, has been furnished me by Dr. David W. Cheever, of Boston, who was connected with that institution in 1857.

"Mary R. entered the hospital June 3. She had no chancre nor tubercles. Denies a primary sore, but has inflammation of cervix uteri, with discharge, and an enlarged gland, not tender, in the left groin. An eruption of coppery blotches in the skin, and also alopecia and hoarseness. She looks pale and cachectic. Ordered to have good diet and small doses of iodide of potassium; that is, twelve grains *per diem*, in syrup of iodide of iron.

* Labatt on Venereal Diseases, 1858, p. 196.

made nearly black with the coating of iodine, and the process should be repeated every other day.

The measures above suggested will usually bring the symptoms speedily to a termination. The constitutional remedy should, nevertheless, be continued for five or six weeks in small doses, even after the individual is rid of them. I advise that carbonate of ammonia enter into the prescription, so that the patient shall take twenty or thirty grains a day of this salt, or even more If these measures fail to bring the desired relief, there is but little hope of benefit from any mere medical treatment. Aconite internally, and also as a topical appliance, colchicum, and copious draughts of the sarsaparilla decoction, can be tried; but the results will, in all probability, be unsatisfactory. In such cases, which fortunately are very rare, the seat of distress is in the *interior* of the bones, that is, if the bones of the extremities are implicated; and the operation of trephining becomes a matter for consideration. This surgical measure has been resorted to in repeated instances with entire success. A few years since, Mr. Lee, of London, published a paper, in which he shows that long-continued pain in a bone may depend, among other causes, upon the deposition of solid material arising from the venereal poison. He recommends trephining for this affection. He operated on a woman, in whom the pain and swelling were confined to the neighborhood of the knee-joint. As the epiphysis of the bone appeared to be the original seat of the complaint, he trephined at that part. As soon as the outer shell of bone was perforated, the cancellous structure was felt to give way under the pressure of the instrument, and some minute and separate flakes of white matter escaped with the blood. The patient recovered.* Mr. Langston Parker mentions the case of a woman, in which the medullary membrane became inflamed during the *secondary* stage of syphilis. The shaft of the left tibia was the part affected. This bone was trephined, and the medullary canal opened. The medullary membrane, turbid with black blood, which ran from it in a stream, protruded through the opening; the perforation was filled with a piece of soft lint dipped in oil. The patient was soon relieved of a most agonizing distress. The opening closed with new bone. In about three months

* London Journal of Medicine, October, 1852. Also Vidal.

Mr. Parker removed with the trephine a second piece of bone, which was carious, and again penetrated the medullary canal. No constitutional disturbance followed either operation. The woman recovered.

Treatment of Venereal Nodes. — Patients who are suffering from syphilitic periosteal nodes usually manifest progressive failure of the general health. Under these circumstances, a course of treatment should be adopted that will tend to recruit the vital powers. The utility of mercury was once believed to surpass that of all other drugs in the various stages of periostitis; but of late years the attention of medical men has been favorably attracted towards the iodide of potassium, and now the voice of the profession is, with here and there an exception, in favor of this article, as the most reliable agent we can employ, with a view not only of subduing tertiary pains, but also for the more important purpose of causing the absorption of the morbid deposit, and thus greatly to diminish the chances of active inflammation and its direct ulterior consequences, exfoliation of the subjacent bone. All these indications, as regards the local disease, can be accomplished, and no permanent traces of its visitation remain, and in the mean time the constitutional state of the individual will be improved by the same measures. Persons who have long been troubled with periostitis, become exceedingly pale and chlorotic — a circumstance indicative of serious impairment of the composition of the blood. The most important deterioration consists in the diminution of the red corpuscles. The process of reduction in the relative proportion of globules commences early in the venereal history of the patient, and continues during the progress of his malady, until at length it terminates in the exsanguine condition alluded to. These facts furnish the practitioner with an important principle in a therapeutic sense. They make known to him the reason why the preparations of iron are so beneficial, and so eminently entitled to confidence in chronic venereal disorders. For the purpose, therefore, of restoring the equilibrium of the elemental constituents of the vital fluid, and of enabling the system more speedily to regain its wonted tone, the class of remedies now referred to may be advantageously united with the iodide of potassium. Of all ferruginous com-

pounds, the potassio-tartrate is the most valuable. It exerts a prompt influence in enriching the impoverished sanguineous fluid, and restores it nearly to its healthy physiological standard; it works in perfect harmony with the potassium, and in most cases which fail to derive the anticipated benefit from the latter substance, the tartrate can be brought into service as an important tributary.

In case of recurrence of ancient periosteal affections, — and this is not very uncommon, — the iodide is again to be prescribed, until the symptoms once more yield. A full, generous diet, pure air, and frequent bathing, will likewise essentially inure to the benefit of the patient.

While it is a well-established fact, that the potassium exerts almost a specific influence on the *hard* periosteal nodes, it is equally certain that when suppuration has commenced this salt possesses little or no virtue, so far as relates to the local disease. If there be a marked syphilitic cachexia, with enfeebled nutrition, emaciation, and depreciation of the whole organism, and the surgeon see fit to continue its use in small doses as a general tonic, there is no objection to the treatment; although in such a juncture the iron will be found more efficacious. Whether a solution of the potassium or the iron be ordered, it should be taken in a large quantity of the compound decoction of sarsaparilla.

Mercury. — Notwithstanding our repugnance to the use of mercury in this complaint, and our confidence in the iodide of potassium, instances will present themselves for the cure of which the former medicine will be required as a small fractional part of the treatment. For instance, if there be a goodly share of constitutional vigor, and if the antecedent symptoms have been treated entirely by what is termed the "simple method," the practitioner will do well to institute a short mercurial course, and especially will this plan be judicious if there be much local inflammation. But as soon as this has been subdued, the potassium, together with some chalybeate, should be substituted.

LOCAL TREATMENT OF NODES.

If much inflammation exist in the integument, a few leeches near the nodular tumefaction will be proper. Afterwards, blisters, and the compound tincture of iodine, repeated sufficiently often to keep the skin perfectly raw, will constitute the most suitable topical means we can put in force. Or the denuded surface may be dressed with the Emplastrum ammoniaci c. hydrargyro, or with the strong mercurial ointment. If, notwithstanding a judicious employment of the measures here recommended, the node continue to increase, and seem tending towards suppuration, or if that event have already taken place, the surgeon need not wholly despair of accomplishing the absorption of the fluid, which is sometimes effected under very unpromising circumstances. However strongly he may be inclined to set free the purulent collection, he should delay the operation until all rational hope of absorption is abandoned. The opening of a node is very liable to be followed by most unpleasant consequences. Should the practitioner decide to puncture the abscess, as a last resource, a very fine trocar, rather than a lancet, should be the instrument; and every precaution should be observed to prevent the entrance of air into the wound. The danger of caries and exfoliation of the subjacent bone will thus be essentially lessened.

A case now and then transpires, in which the morbid growth has been of long duration, and after undergoing a certain degree of diminution remains nearly stationary, is of bony hardness, and is attended with no pain or other inconvenience. It is an instance of real osseous deposit — an *exostosis*, which will be uninfluenced by any medical agents. It is the result of the previous inflammatory action in the bone and periosteum, and, unless it should interfere with the normal functions of the related organs, it may be allowed to remain on the part as a mere excrescence and harmless deformity.

In whatever portion of the osseous system exfoliation, caries, or necrosis takes place, under the influence of the syphilitic virus, the surgical and medical treatment is to be the same as under circumstances wholly independent of such a cause; and any suggestions from me relative to the management of these conditions seem uncalled for.

unfrequently baffle the judgment, in our attempts to decide upon the exact pathological character of the symptoms under review. In the adult subject the phenomena are developed with comparative regularity, and are generally recognized at sight. The origin or mode of infection in the two classes of subjects is different, and the lesion which is primary in the one, is rarely ever met with in the other. M. Caillault, a recent French writer, considers the cutaneous phenomena of congenital syphilis as constituting in point of fact the whole disease of infants.* This view of the subject, however, is untenable, as we shall shortly see, and as almost every physician already knows.

In infantile syphilis the symptoms belong almost exclusively to the secondary group. The tertiary affections, involving the bones and their immediate investments, are very rarely met with. A few years since, Dr. Van Buren, of New York, had a case of this sort; and M. Bertin has given an instance that occurred at *la Maternité* nearly half a century ago, and in a child thirty-five days old. There was periostitis on the superior and posterior surface of the ulna; tubercular pustules sprang up on various parts of the surface; and a tumor, as large as a pigeon's egg, formed over the left great trochanter. Small doses of corrosive sublimate were administered, and in three or four months all the symptoms disappeared.

The bones of the nose in the new-born infant are occasionally destroyed by the disease, and a falling in of the organ takes place, which imparts to the features a most hideous deformity; and Dr. West records the case of an infant of a few months old, whose bony palate was destroyed.

If the father have at any period been afflicted with primary disorder, but is free from consecutive lesion when the ovum is impregnated, the product of such impregnation may, nevertheless, be tainted with constitutional syphilis. Here the procreative element is the medium of transmission. Results of this description are extremely rare, but the bare fact of their occurrence is established beyond all possibility of doubt. Within a twelvemonth I have met with one example perfectly well authenticated. The child began to show evidence of the vene-

* A Practical Treatise on Diseases of the Skin in Children from the French of Caillault. By R. H. Blake, &c. London Edition, 1863, p. 6.

real taint when three weeks old. But its true condition was not understood by the parents, and no apprehension of its safety was entertained until the surface of the body and limbs, and a portion of its face and head, were thickly covered with scaly blotches of undoubted specific eruption. The father, a well-educated legal gentleman, took alarm, and made known to me his history, stating that several years before marriage he contracted chancre, but never had constitutional symptoms. I saw the child but once. It was a living mass of corruption, and died before it reached its tenth week. The mother escaped contamination, and had no suspicion of the real malady that destroyed her first-born child. She did not nurse it.

Where one instance occurs like that of the child above mentioned, there are hundreds, probably thousands, where no taint is communicated by the spermatic secretion of the father, who, at a former period, may have had chancre, but in whom no constitutional complaint exists at the time the ovum is impregnated. The explanation of these facts must, in the present state of our knowledge, be purely hypothetical. In the instance I have adduced, the father, as he stated to me, was subjected to the simple method of treatment for his chancre. Had mercury constituted the chief remedy, would the child have escaped the infection? Whatever may be the true answer to this inquiry, I deemed it expedient to put this father upon a moderate mercurial course, combined with diaphoretics, the use of which was prolonged for several months, with a view to eliminate the latent poison, and thus prevent its transmission, in the event of any future pregnancies through his instrumentality. The result of this treatment has not yet transpired. My confidence in it is not very great.

The blight of the ovum and abortion are often produced by the presence of the syphilitic virus derived from the vitiated spermatozoa of the father, who, as well as the mother, may be in good health at the time of the conception. By some writers it has been supposed that in these cases the mother must be infected first, and the fœtus afterwards; but facts are every now and then brought to light disproving this theory, and establishing exactly its opposite, namely, that the mother, who escapes the infection at the time of copulation with an individual laboring under the venereal diathesis, may become infected

from the fœtus, the germ of which has been poisoned by the semen of this same individual. This proposition may be considered as established by indubitable facts which have been announced by the most reliable observers. I must here cite an instance related by Mr. Langston Parker at a recent lecture at Queen's College, London. A man married a healthy lady, having had no symptoms of syphilis of any kind for a year previous to his marriage. Shortly after marriage his wife became pregnant, and the husband again suffered from copper-colored blotches on the skin, and he had ulcers in the throat, and lost his hair and eyebrows. The wife was prematurely delivered, in the fifth month of her pregnancy, of a dead child. She had, about this time, copper-colored blotches like her husband, a sore throat, and lost her hair and eyebrows. In this case, and I dwell especially on the fact, says Mr. Parker, no sexual mischief existed. The wife was carefully examined. She had never had a vaginal discharge of any kind; the vagina and the mouth and neck of the uterus appeared totally free from disease.*

In considering the facts connected with the etiology of infantile syphilis, there is no difficulty in comprehending the influence of a syphilitic mother in transmitting the same malady to the new being that germinates in her womb. The mystery is rather how the bud or branch that springs from such a trunk can possibly escape. During the intra-uterine existence of the child it derives its pabulum — its life-blood — from the same vivifying current that supplies the maternal organism, and it would be strange indeed if, during this imprisonment and this condition of utter dependence, it did not imbibe into its tissues the same morbid element that preys upon the mother.

Probably the circulation constitutes the most common medium, or channel, through which the venereal poison is conveyed to the fœtus *in utero*, although Hunter entertained the hypothesis that the blood could not infect, and therefore he could not comprehend how the fœtus was contaminated.

The infection can be communicated during parturition by the infant passing through the vagina affected with primary venereal ulcers. Inoculation in this way, however, is probably very infrequent. The smegma, or sebaceous matter, that cov-

* Lancet, May 29, 1858.

ers the whole surface of the child, operates as an admirable safeguard. Vidal questions whether primary chancre has been observed in the new-born infant, produced by disease in the genital passages of the parturient mother.

There is also reason to believe that *the milk of a syphilitic nurse* is sometimes the medium of infecting the nursling, whether the breast is the seat of any local disease or not. This opinion is entertained by Mr. Whitehead, Mr. Wilson, and other writers of note, but is denied by other high authorities. I imagine that no practitioner would, if called upon for advice, recommend a suckling child to the custody of a syphilitic wet-nurse, knowing her to be such. Such counsel, if given by a physician in this country, would be suicidal to the professional reputation and standing of its author, and that justly. He might as well countenance the deadly administration of arsenic dissolved in the contents of the milk-bottle, as to allow a child to draw poison from the human breast.

An infant, having secondary symptoms at birth, cannot infect its mother's breasts, even if its mouth be ulcerated, although such a child can, and often does, inoculate a strange wet-nurse. The late Mr. Colles, of Dublin, was the first to discover and furnish to the profession this curious fact. His statement has been corroborated by others who have had ample opportunities for observation. Mr. Hutchinson, surgeon to the Metropolitan Free Hospital, London, gives full countenance to the views of Mr. Colles, and suggests, in explanation, that in such cases the mother of the diseased child has already received from it, whilst *in utero*, all the contagion it is capable of conveying. Hence her exemption or immunity.

Prognosis. — If the child be seen early, and can be placed under favorable hygienic and remedial influences, the prognosis in many cases is quite favorable. It is a fact, however, in a majority of instances where the disease is congenital, — that is, where the infant comes into the world with the syphilitic leaven pervading its organization, — that it is endowed with a low vitality, and that its existence is very seriously compromised. Although for a few days or a few weeks all may seem fair and promising, death will very probably overtake the poor victim before it arrives at the period of dentition.

The most fatal epoch is before the child reaches the third month of extra-uterine life.

If contamination take place *after* birth, the case is one of *acquired* syphilis, in distinction from congenital or hereditary disease, and the prognosis is more favorable than it can be where the taint is coeval with conception, or with any portion of fœtal existence. The symptoms are usually of a mild type, and yield to good nursing, cleanliness, pure air, and gentle medicinal treatment. If inoculation with chancrous matter have taken place, which, as previously stated, is an exceedingly rare occurrence, the resulting sore is more apt to assume a phagedænic character than in the adult.

Symptoms. — Infants born with the venereal taint within them exhibit, for the most part, great uniformity of symptoms; and yet there is not, in every instance, an entire assemblage of all the morbid phenomena which the virus is known to engender. In some cases, where the constitutional infection is contracted during embryonic life, the manifestation of all specific accidents or lesions is delayed for several months; the infant, meantime, being to all appearance in perfect health, until some incidental circumstance, such as dentition or the process of weaning, seems to operate as an immediate exciting cause in bringing to light the latent diathesis. Generally, however, it may be remarked that the effects of the poison are well pronounced at an earlier period.* If you look at a child three or four weeks old, that has the virus within it as a transmitted inheritance, the first thought that suggests itself is that you have before you a miniature emblem of old age. The integument of the face and of the whole frame is wrinkled in consequence of defective nutrition. It hangs in little folds about the jaws, neck, and different parts of the limbs, and is of a dirty yellow tint. This peculiar color of the skin Trousseau considers of great value in forming a diagnosis. He attaches more importance to it than to the copper color of eruptions. Within the past ten years I have had opportunity to examine great

* The data, obtained by Diday from various sources, show that out of one hundred and fifty-eight cases, eighty-six presented symptoms before the first month, forty-five before the second month, and fifteen before the third month.

numbers of foundlings and other young infants, in whom the venereal impregnation manifested itself by the presence of this unique, cutaneous pigment, as one of the earliest, most constant and significant abnormal conditions visible. It is frequently present before any actual eruption appears upon the external surface, and before the mucous membranes exhibit any marked signs of specific disease. Remarkable and characteristic blotches, having the well-defined, coppery hue, are especially frequent about the buttocks, thighs, genitals, legs and abdomen.

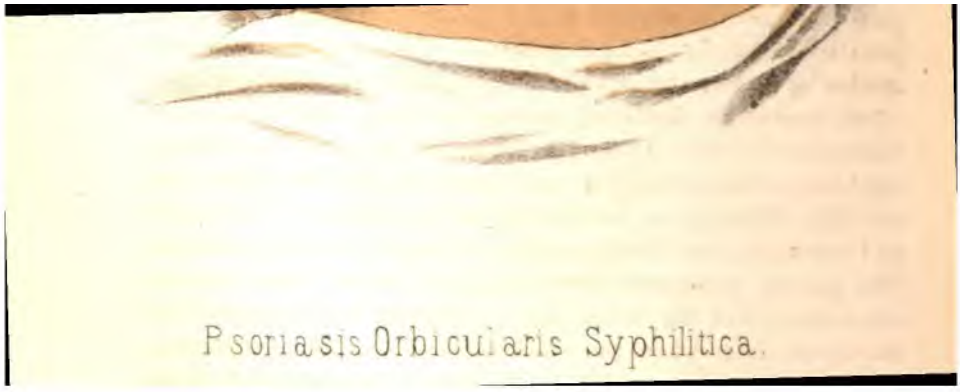
The integument of the hands and feet presents an erythematous congestion, with numerous traces of exfoliation of the cuticle; and fissures of various depth, and ulcerations mostly superficial, are formed in the natural flexures of the fingers and toes, at the roots of the nails, and elsewhere on these parts. A similar appearance of the skin will generally be noticed on examination of the nates, the perineal and anal regions, the scrotum and labia.

The surface often has a mottled aspect, not unlike that of rubeola. It is, however, of a darker hue than that of ordinary measles; it comes at first in small circular discs on the forehead and cheeks, or about the chin, or below the ears, and resembles mere flea-bites in appearance. In four or five days, nearly the whole of the face, the neck, the chest, and abdomen, will be occupied by them. These blotches of eruption are quite persistent, and are frequently accompanied by a general anasarcous state, which imparts to the skin a smooth polished aspect. This morbid condition has been called *rubeola syphilitica*.

Syphilitic *macula* frequently arise upon various districts. They are of different dimensions, and assume an oval or round figure and the well-known coppery color. They subside partially under the pressure of the finger. In some cases, a slight desquamation, as in chloasma, is perceptible in connection with these yellow stains, and in others not. [Plate VII.]

If the morbid patches become decidedly squamous, it will be found, on examination, that this condition is preceded by a crop of minute papules, which spring up on the inflamed spots, and pultaceous scales are afterwards evolved on the apices of the papules. The portions of skin thus implicated usually increase in size by new accessions of papules appearing on their borders,

Syphiliticæ



Psoriasis Orbicularis Syphilitica.

which are elevated above the adjacent surface. They assume and maintain a pretty uniform orbicular figure. [Plate VIII.]

In some instances the eruption is confined to the hands and feet, in the form of well-defined, copper-colored squamæ, while all the other portions of the integument are free from blemish.

Sometimes the eruption manifests a marked pustulo-papular tendency. The amount of exudation, however, is small, and produces irregular, thin, dark-colored incrustations, which are very adherent to the subjacent derma. Superficial sores often break out also about the knees, the ankles, shoulders, and other parts, that are exposed to pressure or friction. Fissures are likewise very generally seen at the angles of the mouth in such children, and a sort of psoriasis of the lips, which are dry and parched; and the little sufferer seems to keep the mouth compressed instinctively, as if for the purpose of avoiding constant distress in the parts. Isolated mucous patches are often observed in the same localities as in the adult; so also the lining membrane of the mouth, the throat, and nasal passages, participates in the specific lesions ordinarily entailed upon older persons.

In certain cases the morbid affections of the mucous membranes exist some little time before any abnormal condition of the cutaneous structure is noticed; in others, the mucous tissue apparently receives nearly the whole force of the disease, while the skin remains intact, or nearly so. The congestion and inflammation of the pituitary membrane always interfere with respiration, especially when the child is at the breast. The peculiar breathing on these occasions attracts the notice of the mother or nurse, who reports that the child has "the snuffles," — an expression familiarly known and very suggestive to the medical attendant. As the morbid action progresses, the breathing becomes more laborious and obstructed, and the patient has no little difficulty in swallowing its nourishment. It chokes and struggles, and fitfully quits the nipple for the moment. The disease penetrates downwards; the larynx soon becomes implicated, and the voice has a singular but characteristic stridulous tone when the child attempts to cry. Sometimes the cry is hardly audible, or, if heard, amounts to a mere hoarse, squeaking sound that is scarcely human.

There is a discharge from the nose of an offensive, sanio-purulent secretion, intermingled with mucus. This irritates

advent of the phenomena above described, even if no treatment be instituted.

ERYTHEMA. — As yet we have barely mentioned this exanthem. As it is generally the precursor or rallying point of other venereal eruptions, it is invested with an interest which would not otherwise attach to it. It may be well therefore to dwell upon its features for a moment. Its presence is of grave import. It denotes that there is a profound constitutional disturbance, of which the eruption itself is a mere sign or expression not produced by any local or extraneous cause. The eruption may appear on any part of the body or limbs, but seldom comes upon the face. It assumes for the most part an acute form, but apparently produces only slight discomfort to the child. It spreads out upon the surface in somewhat irregular circular or oval patches of various dimensions.

At first the color is a vivid red, but in two or three days the blotches reach their acme, and the brilliant scarlet hue becomes gradually less conspicuous, and a dingy red color prevails. After the erythema has continued for six or eight days, a delicate trace of yellow often mingles with the coloration.

If the eruption exists upon the nates, around the anal region, inguinal folds, or genitals, the cuticle is very apt to be cast off at an early day, and after the desquamation has taken place the derma shines as if polished or covered with a layer of varnish. There is little or no serous exudation, except about the folds of the skin. The cuticle is reproduced at irregular intervals, and if the child nurses well, is kept cleanly, enjoys a salubrious atmosphere, is brought under the immediate action of appropriate medicine, — that is, mercury, — and the venereal diathesis is comparatively mild, it may resist any further encroachments of the disease

I have now under treatment a female infant, nine months old, which first exhibited, at the age of five months, signs that it inherited the venereal diathesis. The mother has never suffered from the complaint, but she knows the father has. At first, erythematous blotches of moderate dimensions came here and there upon the extremities of the child. They were not numerous, but the mother suspected their nature. In a few weeks small isolated tubercles supervened. These soon acquired a

pustular character, with hard bases and thick, dark, prominent scabs; presenting, in short, the usual features of syphilitic ecthyma. The mucous surfaces were not abnormal. The general aspect of the child, when I first saw it, betokened a moderate degree of atrophy or stinted growth. It lacked vivacity, plumpness and color. It nursed well but the nutritive function was at fault. That it was a genuine case of congenital syphilis there was no reason to question.

The child was put upon the use of the bichloride of mercury, — one-sixtieth of a grain twice a day, — and to the eruption a weak nitric oxide of mercury ointment was applied. The eruption yielded very rapidly to the action of the medicines, and the child has grown fat and in all respects improved in a satisfactory manner. The bichloride will be continued in half the original quantity for some weeks to come.

But in a vast majority of cases a far different doom awaits the syphilitic child. The morbid phenomena, instead of diminishing in severity, become more and more intense; the erythematous inflammation bursts out in new places, and spreads in every direction; excoriations of various extent and depth are formed; gangrenous or sloughing ulcerations are established at different points; numerous vesicles or bullæ appear about the small joints of the extremities and discharge a fœtid, sero-sanious matter; the ill-developed nails turn yellow, dry up, and are detached; abscesses supervene, and diarrhœa sets in; and finally coryza and laryngitis complete the picture, and the child dies. I have seen not a few such cases within the last thirty years.

INTERNAL ORGANS

The Lungs. — Indurated masses or nodules are frequently found in the parenchyma of the lungs in all stages of development as a syphilitic lesion. At first they are hard, — mere indurations; they afterwards soften, suppurate, and yield a sero-purulent fluid. Their course is usually rapid and always fatal. The symptoms to which they give rise are similar to those of pneumonia. The pulmonary affection is occasionally the only disorganization manifest, but in most instances the skin, the throat, and other regions, are occupied by some allied form of syphilis. These nodules are formed during fœtal life, and have been found

by M. Tierlinck to contain pus-globules at the seventh month. It still remains a matter of question whether a true tuberculosis, either in the young or in the adult subject, can be produced or even developed by the syphilitic element.

As yet we have no means of positively detecting the peculiar elementary characteristics of these syphilitic deposits, if any such really exist. The microscope brings to view fibro-plastic material, cell-nuclei of various sizes, oil or fat globules, pus globules, amorphous matter, &c.; but these are all found in other morbid products also. In the early stage of formation Mr. Wilks, of Guy's Hospital, found nodules in the lungs of a syphilitic patient to consist of fibro-plastic tissue. The disease in this instance consisted of rounded masses in the substance of the lung, quite circumscribed and firm, and presenting an appearance different from the ordinary or inflammatory deposits.

Several writers have described diseases under the term "Syphilitic Pulmonary Disease;" and one author tells us that syphilis displays itself in the lung under the varied forms of bronchitis, pneumonia, or broncho-pneumonia.

Hepatic Affections. — It has for a long period been a well-settled belief that in constitutional syphilis the liver becomes involved; and it is now fully demonstrated by pathologico-anatomical facts that the venereal poison is one of the most frequent predisposing causes of various morbid conditions of the biliary apparatus. The morbid process manifests itself in several different forms, as simple interstitial hepatitis, hepatitis gummosa, waxy, amyloid or lardaceous degeneration of the liver. There are still other forms of hepatic disease where the development of areolar tissue is widely extended throughout the liver, and gives rise to simple or granular induration, and are described under the title of syphilitic cirrhosis.

Of seventeen cases of syphilitic hepatitis examined by Frericks the organ was reduced in size four times, and once it did not exceed twice the size of a man's fist; the volume was normal in seven cases, and in six it was enlarged; in five there was waxy degeneration. This latter condition, resulting from constitutional syphilis, may exist when the osseous system is not attacked. It has been found even in newly born infants.

In the year 1848, M. Gubler, of France, presented to the

notice of the profession a very important paper demonstrating the occurrence of a peculiar change in the liver in a great number of new-born children affected with hereditary syphilitic phenomena; and the pathological researches of Cullerier, Depaul, Lebert, Trousseau, and many other observers, concur in proving that while various syphilitic lesions are developed in the skin and mucous membranes, the liver is profoundly disorganized in different ways; but the most frequent abnormal conditions appear to be hypertrophy and induration; and yet, strange to say, Mr. Wilks informs us that although he has seen fibrous deposits in the livers of children who have had hereditary syphilis, he has not met with this enlargement and hardness of the organ. The change here spoken of is regarded as similar to the lardaceous or waxy liver. In extreme cases of this extraordinary formation it resists pressure, and when torn by the fingers its surface receives no indentation from them, and the elasticity of the organ is such that if a wedge-shaped piece taken from its thin edge be pressed, it escapes like a cherry-stone and rebounds from the ground. When cut into it creaks slightly under the scalpel. Sometimes the change is universal, at other times partial.

Microscopical examination of the diseased tissue reveals the presence of a great amount of fibro-plastic material.

A remarkable fact connected with this syphilitic condition of the liver is, that there is never any jaundice even when the entire organ is diseased.

Gubler regards the special change in the liver above spoken of as a lesion of the tertiary order, although no tertiary phenomena, properly so called, are observed to coëxist with it; and further, it has been found that the iodide of potassium will not cure it, while the proto-iodide of mercury has been found to be the specific for it. The opinion of Diday is quite curious, and is at variance with that of Gubler. Diday believes (p. 95) that the induration of the liver in new-born children is exactly analogous to the induration of a chancre in the adult, and is due to the transmission of the poison furnished by the blood of the mother, determining in its course the same organic reaction, of which induration is the expression, which the poisonous pus absorbed during coitus induces around the chancre, and then in the first lymphatic which it traverses. On this theory induration

of the liver ought not to occur when the infection proceeds from the father; and such, it is averred, is the fact.*

TREATMENT. — So far as mere pharmaceutic agents are concerned, the treatment may be summed up in few words, namely, mercury and the iodide of potassium. The same may be said in regard to the treatment of syphilitic lesion of the lungs, although in the latter malady no therapeutic preparations are available for good. The form of mercury which I prefer is the bichloride, — from one-sixtieth to one-twentieth of a grain once or twice per diem, as in the subjoined formula: —

℞. Hydrargyri Bichloridi, ... gr. j.
Syrupi Tolutani, ... ʒ ss.
Aquæ Fontanæ, ... ʒ viiss. M.
Give a teaspoonful, once, twice, or thrice daily.

In regard to the duration of the mercurial treatment no positive rules can be prescribed. The age of the child, the severity of the symptoms, and the apparent influence of the remedy, will serve, in a good degree, as a rational guide both as to the daily amount that should be administered and the period during which it should be continued. It should be prolonged for two or three months, with occasional intermissions of a few days, after the syphilitic manifestations have disappeared. It must not be concealed, however, that the prospect of permanent benefit to the little patient is very slight, compared with the many probabilities to the contrary.

* Testelin, a German writer, comes to the following conclusions respecting syphilitic affections of the liver. (1.) In a majority of cases the high mortality of sucking children, affected with hereditary syphilis, depends on specific disease of the liver. (2.) This morbid alteration, characterized in the dead body by the presence of fibro-plastic elements in the parenchyma, reveals itself during life by disturbance of the digestive canal coëxisting with the ordinary signs of hereditary syphilis, and by a considerable enlargement of the liver demonstrable by palpation or percussion. (3.) In most cases of syphilitic affection of the liver death is caused by a suddenly supervening of peritonitis. (4.) In rare cases death can also be caused by passive hemorrhages, which may depend partly on the crasis of the blood, partly on the disturbance of the circulation occasioned by the liver affection. — *New Sydenham Society's Year-Book of Medicine and Surgery for* 1860, p. 238.

PERITONITIS. — Several years ago, Professor Simpson reported a number of cases of this disease which proved fatal in children whose mothers were suffering from constitutional syphilis, and he considered the peritoneal inflammation as due to the venereal element. Gubler states that in some cases of infants in whom induration of the liver was found, evident traces of inflammation of the peritoneum were also detected.

THYMUS GLAND. — Numerous instances of suppuration of this organ in children of syphilitic parents have been reported by various observers. Externally the gland presents no abnormal features; but upon cutting it open and squeezing it, minute drops of purulent matter appear upon the incised surfaces. In most of the subjects thus examined, the skin, lungs, and liver likewise presented unequivocal evidence of syphilis.

DIAGNOSIS. — By studying the specific accidents, the physician will soon be convinced that the child has upon it symptoms and appearances not belonging to any non-venereal malady.

The child may be born at the normal period of gestation. It may, possibly, be plump and hearty, and no signs of disease be manifest for several weeks after it comes into the world; when, suddenly, it will furnish indubitable proof that it is the offspring of syphilitic parents. The salient points, which, for the most part, present themselves for examination and study, have already sufficiently engaged our attention.

Infants a few weeks or months old are subject to eczema on the face, the scalp, and extremities. But however severe this troublesome affection may be, it is very seldom indeed that the general health of such young children is impaired. They have restless nights, because of the ceaseless pruritus that characterizes the affection, but they feed and thrive as well as if no cutaneous eruption were upon them; nor have they any corresponding abnormal state of the buccal and nasal mucous membrane. They can cry with a clear and strong voice, and are generally extremely fractious; whereas syphilitic infants are usually just the reverse, and to a remarkable degree, for the reason that they do not suffer from cutaneous irritation, however extensively the skin may be covered with specific eruption.

Strophulus confertus is quite a common eruption among

infants during early dentition. It appears upon the cheeks, upon the dorsal aspect of the extremities and trunk. Although the elementary form of the rash is a papule, the general appearance of the skin and of the patient has nothing in common with the features observed in a syphilitic papular eruption at this age. Besides, strophulus like simple eczema, occasions a good deal of itching, and prevents the quiet sleep of the child, which, however, usually enjoys high health, and the pimples disappear in a few months as well without medical assistance as with it.

It has been sufficiently shown that a venereal complaint developed upon the skin of an infant is almost without exception associated with disease within the mouth, and with constitutional derangement of a very grave character. Let this important fact always be fresh in the mind in all cases that present themselves for our decision as to whether they are syphilitic or otherwise, and we shall rarely misjudge the nature of the disease.

Another important general fact or circumstance due to the venereal poison, when pervading the fœtal economy, is the defective performance of the function of nutrition; and it is to this imperfect developmental action continually operating upon the embryonic organization, that we are to attribute the withered, senile condition of the majority of children born under the evil star of syphilis. Mr. Hutchinson is of opinion that in those instances where the infant is born apparently well, but showing signs of syphilis soon after birth, the taint is derived solely from the father. The mother, being free from disease, furnishes a supply of healthy nutriment to the fœtus, which lives and thrives, having no need for the exertion of its own organs of assimilation. But after birth it loses this privilege, and with a constitution enfeebled by its taint, is compelled to digest its food, and aerate and elaborate its blood for itself; hence its speedy exhibition of the hitherto latent disease.

The squamous form of eruption is one of the most frequent and decisive external manifestations of the specific virus that are observed in the young child; whereas, squamous affections of a non-specific origin are rarely ever met with in the infant. If, therefore, circular patches of psoriasis are seen on a child within a few months from its birth, there is substantial ground

for suspicion that the complaint is venereal. There is a peculiarity in the anatomical character of the squamæ. They are thicker, and in many places, as on the head, the face, the buttocks, and about the roots of the nails, are more like thin, laminated crusts than like the dry, white, furfuraceous, branny scales of simple psoriasis, or lepra. Other lesions pointing to the same morbific source will also be present. Nevertheless, if it be possible for the physician to obtain a truthful medical history of the parents, he should bring that to his aid before determining upon the case. All the circumstances relating to any previous illness of the father or mother, whether before or after marriage, should be ascertained and analyzed. They will, in all probability, constitute very essential links in the pathological chain that connects the parental malady with that of the offspring, as cause and effect.

Notwithstanding the utmost diligence to gather the elements on which a just diagnosis can be established, a case will sometimes present itself that will greatly embarrass the shrewdest practitioner. The mother, for instance, may never have had any venereal trouble. The husband may be able to say the same for himself; or he may have had the primary disorder ten or fifteen years antecedent to the birth of the child, and may never have had constitutional symptoms. Or, instead of the husband, an alien may unlawfully have stepped in and contributed to the conception of the child.

Other circumstances relating to the parties, and calculated to involve the question of diagnosis in obscurity, are liable to transpire; and the medical man cannot too strongly fortify himself against the many stratagems and other sources of error that may beset his path when he is called upon to give his opinion, either in private or in the halls of justice.

TREATMENT. — The administration of mercury directly to the infant constitutes the most efficacious treatment for the removal of all venereal symptoms which it may exhibit. The idea of making the mother or the wet-nurse the medium through which to reach the manifestations inherent in the child, has become obsolete, and is justly discountenanced every where.

It matters but little whether the mineral be conveyed into the child's system through the cutaneous surface or through

the stomach; whether a powder, a liquid, or an ointment be used; the ultimate effect on the constitution and on the malady will be substantially the same. I have tried all these methods with equally favorable results. Either plan, and either preparation, as may be most convenient, may be prescribed.

It is well known that children are rarely affected with that factitious disease, salivation, so readily induced in the adult. I have never known a child of four or six months to be disturbed by ptyalism as the result of mercurial action on the system. The remarkable power of this class of patients to tolerate the presence of mercury without suffering from its physiological influence, as usually displayed in the adult, has been differently explained. By some writers the immunity of the young infant has been attributed to the fact that in the latter mercury exerts its force on the skin and intestinal canal, and avoids, as it were, the salivary glands. Others consider that there is an imperfect development of the organs as regards their *function* in the infant; and I confess that I am inclined to accept this theory. So long as the mother's milk constitutes the nourishment of the infant, the secretion from its salivary glands is not needed. An analogous fact no less curious and interesting, and which I cannot forbear to mention in this connection, is that the function of the maternal mammary glands is postponed until the time and occasion arrive when this function can be turned to useful account. The lachrymal glands furnish still another example of tardy functional activity or development. The infant will cry right heartily from the moment of its birth, but shed no tears until it is several months old.

The use of the strong mercurial ointment has been in vogue for more than half a century for the cure of infantile syphilis, and it is the form of medication that has been adopted by a large portion of medical practitioners up to the present time. Ten or fifteen grains of the ointment should be rubbed upon the feet or about the ankles or knees, morning and night, until the symptoms begin to yield. It may then be applied with less freedom. This is a mild and safe way of introducing the mineral into the system. It is no small recommendation to state that inunction is preferred by Sir Benjamin C. Brodie to any other mode of treatment. His method is this: A drachm

potassium be substituted for two or three weeks; after which the mercurial should again be administered.

Country air and good nourishment will materially aid in the restoration and welfare of the child, which should be brought up by hand.

Syphilis and Pregnancy. — The method of treatment to be adopted for a female, whether more or less advanced in pregnancy, requires no modification whatever of the remedial course that would be appropriate under other circumstances. This proposition, or statement, is fully sustained by the experience of the best and most reliable observers, with scarcely a dissenting voice. The opinion was formerly extensively diffused among the members of the profession that the administration of mercurials was injurious to women during utero-gestation; and also that the class of medicines here referred to had a tendency to cause abortus, or the death of the fœtus. Now, however, such prejudices exist only to a very limited extent. They have been replaced by views of a directly opposite character. The present belief is that, instead of producing an arrest of fœtal development and abortion, the use of mercury is calculated to prevent these evil consequences.

FORMULÆ OF REMEDIES.

FOR GONORRHŒA.

℞. Bals. Copaibæ, ... ℥ iij.
Spiritûs Ætheris Nitrici, ... ℥ ss.
Tincturæ Kino, ... ℥ ss.
Misturæ Camphoræ, ... ℥ ij.
Morphiæ Sulphatis, ... grs. iij. M.

Dose. — One teaspoonful three times a day.

℞. Bals. Copaibæ, ... ℥ iiss.
Spiritûs Ætheris Nitrici, ... ℥ j.
Tincturæ Kino, ... ℥ iss.
Pulveris Gm. Acaciæ, ... ℥ ij.
Tincturæ Opii, ... ℥ ss.
Aquæ Fontanæ, ... ℥ ij. M.

Dose. — One teaspoonful three times daily.

℞. Pulveris Cubebæ, ... ℥ vj.
" Aluminæ, ... ℥ vj. M.

Div. in chart. No. xxiv.

Dose. — One powder three times a day in a gill of water.

INJECTIONS IN GONORRHŒA.

℞. Zinci Sulphatis, ...
Plumbi Acetatis, āā, ... gr. xv.
Tincturæ Catechu, ...
" Opii, āā, ... ℥ j.
Aquæ Rosarum, ... ℥ viij. M.

Injection. — To be used three times daily.

℞. Vini Rubri, ... ℥ vj.
Acidi Tannici, ... grs. xviij. M.

Injection. — For the male urethra. For the vagina the quantity of tannin may be doubled.

℞. Zinci Chloridi, ... gr. iv.
Aquæ Fontanæ, ... ℥ vj. M.

Injection. — To be used two or three times daily.

℞. Hydrargyri Acidi Nitratis, ... gtt. ij.
Aquæ Fontanæ, ... ℥ vj. M.

Injection. — In gonorrhœa or gleet. To be used once, twice, or thrice daily. Few patients can tolerate this injection stronger than is here prescribed.

℞. Vini Opii, ...
Liquoris Plumbi Subacetatis, āā, ... ℥ ss.
Aquæ Distillatæ, ... ℥ vj. M.

Injection. — To be used three times a day, in gonorrhœa or gleet.

FOR CHORDEE AND PAINFUL ERECTIONS.

℞. Take spirits of camphor, about thirty drops, every hour, in a wine-glass of sweetened milk, until three or four doses are taken, if necessary.

GLEET.

℞. Tincturæ Ferri Sesquichloridi, ... ℥ ss.
Aquæ Fontanæ, ... ℥ ij. M.

Dose. — One teaspoonful thrice daily, in a gill of cold water.

℞. Copaibæ, ... ℥ ss.
Tincturæ Cantharidis, ... ℥ ij
" Ferri Sesquichloridi, ... ℥ j. M.

Dose. — Thirty drops thrice daily, in a gill of sweetened water.

℞. Tincturæ Cantharidis, ... ℥ j
Quiniæ Sulphatis, ... ℥ ss.
Tincturæ Ferri Sesquichloridi, ... ℥ ij.
Acidi Sulphurici Diluti, ... ℥ ss.
Aquæ Fontanæ, ... ℥ viij. M.

Dose. — One ounce three times daily, in an equal quantity of water.

℞. Morphiæ Sulphatis, ... gr. j.
Sacchari, ... ℥ iij.
Misturæ Camphoræ, ...
Mucilaginis Acaciæ, āā, ... ℥ ij.
Olei Terebinthinæ, ... ℥ ij. M.

Dose. — Two drachms thrice daily. Injections the same as in gonorrhœa.

VEGETATIONS, CONDYLOMATA, AND WARTS.

WASH.

℞. Liquoris Sodæ Chlorinatæ, ... ℥ ss.
Aquæ Fontanæ, ... ℥ v. M.

Ft. lotio.

FOR WARTS.

℞. Pulveris Œruginis, ...
" Sabinæ, āā, ... ʒj. M.

Apply a small quantity every three or four days.

℞. Acidi Chromici, ... ʒij.
Aquæ Fontanæ, ... ʒx. M.

To be applied in the same manner as a strong solution of nitrate of silver, once in three or four days. It produces but little pain, and is usually effectual in destroying venereal warts.

℞. Zinci Chloridi, ... ʒij.
Aquæ Fontanæ, ... ʒj. M.

To be used like the preceding.

GONORRHŒA IN THE FEMALE.

℞. Copaibæ, ...
Mucilaginis, ...
Pulveris Cubebæ, āā, ... ℥ j.
Spiritûs Ætheris Nitrici, ... ℥ iss.
Misturæ Camphoræ, ... ℥ viij. M.

Dose. — A tablespoonful in half a gill of sweetened milk, three or four times a day.

℞. Tincturæ Lyttæ, ...
Tincturæ Cubebæ, āā, ... ℥ ij.
Misturæ Camphoræ, ... ℥ iv.
Morphiæ Sulphatis, ... gr. iv. M.

Dose. — One drachm thrice daily, in half a gill of sweetened milk.

INJECTIONS.

℞. Tanninæ, ... ʒ ij.
Potassæ Chloratis, ... ʒj.
Aquæ Fontanæ, ... ℥ xvj. M.

Inject an ordinary female syringeful at a time, and repeat the operation *ad libitum*.

℞. Infusionis Cinchonæ Rubræ, ... ℥ x.
Acidi Nitrici, ... ʒ ss. M.

To be used as an injection repeatedly during the day.

℞. Tincturæ Iodinii Comp., ... ʒ ss.
Aquæ Fontanæ, ... ℥ viij. M.

Inject a syringeful three, four, or five times a day.

℞. Aluminæ, ... ʒj.
Aquæ Fontanæ, ... ℥ xij. M.

INJECTION. — To be used freely.

℞. Zinci Sulphatis, ...
Acidi Tannici, āā, ... ℈j.
Aquæ Fontanæ, ... ℥ x. M.

INJECTION. — To be used freely.

CHANCRES.

CAUSTIC APPLICATIONS. — (ABORTIVE TREATMENT.)

I use the following substances, and give preference to them as they are here arranged: —

1. Concentrated Nitric Acid.
2. Acid Nitrate of Mercury.
3. Chloride of Zinc Paste.
4. Solution of Chromic Acid.

SLOUGHING CHANCRES, OR ULCERS.

℞. Potassæ Chloratis, ... ℥ ss.
Aquæ Fontanæ, ... ℥ viij.
Acidi Hydrochlorici, ... gtt. xx. M.

Signa. — LOTION. To be constantly applied with lint, until healthy action is produced, after which a somewhat weaker solution may be employed. Of late I have used the chlorate of potash solution to sloughing and atonic ulcers with the most gratifying results.

SINUSES.

℞. Tincturæ Iodinii, ... ℥j.

Inject into the sinus a small quantity every four or five days, if necessary.

MUCOUS PATCHES ON THE TONGUE.

℞. Extracti Cicutæ, ... ʒss.
Hydrargyri Chloridi Corrosivi, ... gr. ij.
Aquæ Fontanæ, ... ℥ vj. M.

Signa. — MOUTH WASH. To be used three or four times daily.

GARGLES.

FOR SLOUGHING ULCERS WITHIN THE MOUTH.

℞. Oxymellis Æruginis, ... ℥j vel ℥ ij.
Aquæ Fontanæ, ... ℥ vj. M.

Signa. — GARGLE. To be used three or four times daily.

℞. Potassæ Chloratis, ... ʒ iij.
Acidi Hydrochlorici, ... gtt. xx.
Aquæ Fontanæ, ... ℥ viij. M.

Signa. — GARGLE. I know of no gargle or mouth-wash superior to this in sloughing ulcerations of the tongue, or elsewhere within the buccal cavity It occasions but very little smarting at the time of using it, and may be repeated many times in the course of the day.

℞. Acidi Hydrochlorici Diluti, ... ʒ ij.
Decocti Cinchonæ Corticis, ... ℥ x. M.

Signa. — GARGLE. To be used freely.

FOR TUBERCLES ON THE FACE.

℞. Pulveris Camphoræ, ... ℈ij.
Hydrargyri Oxidi Rubri, ... ℈ij.
Unguenti Rosarum, ... ℥ ij. M.

A small quantity to be applied at night. In the morning the ointment may be removed with soap and water, and the following lotion of acid nitrate of mercury immediately applied with a camel's-hair pencil:—

℞. Hydrargyri Pernitratis Liquoris, ... gtt. xxx.
Aquæ Destillatæ, ... ℥ vj. M.

Signa. — LOTION. To be applied freely to the tubercles.

Or,

℞. Hydrargyri Cyanureti, ... gr. ij.
Aquæ Destillatæ, ... ℥ vj. M.

Signa. — LOTION.

This lotion should be smeared over the tubercles with a camel's hair pencil, once or twice a day. If it produces much smarting, cold water should be used freely to subdue it, and the wash should be employed less frequently. It sometimes proves efficacious in removing the tubercles from the face without recourse to any other topical remedy.

INDEX.

PAGE

Abbott, Dr. S. L., secondary syphilis communicated to an infant by an attendant, ... 300
Abrasions, superficial, on the tongue, ... 371
Accidents from iodide of potassium, ... 337
Acid, chromic, as an escharotic, ... 167
nitric, as an escharotic, ... 165, 196
in sloughing phagedæna, ... 245
sloughing ulcers, ... 245, 376
danger in applying it to the pharynx, ... 377
Acid, Nitrate of Mercury as an escharotic, ... 166, 196
Alopecia, ... 366
Amaurosis, syphilitic, ... 399
Ammonia, carbonate, in phagedænic chancre, ... 247
with iodide of potassium, ... 339
Anæsthesia, or deficient cutaneous sensibility, ... 279
Arseniate of iron in herpes præputialis, ... 101
and quinine in herpes præputialis, ... 102
Average time for the healing of indurated chancre, ... 219
between exposure and the appearance of chancre, . 193
Babington, method of prescribing mercury, ... 213
Balanitis, ... 72
pseudo, ... 73
causes of, ... 74
treatment, ... 75
Baldness, ... 366
Balsam of copaïba, ... 36
eruptions produced by, ... 24, 306
useless in vaginal gonorrhœa, ... 176
first employed by Professor Chapman, . . . 36
Behrend, Mr., on potassio-tartrate of iron in primary syphilis, . . 244
Bennett, of Edinburgh, a non-mercurialist, ... 208
on contagiousness of secondary syphilis, ... 291
cases reported by him, ... 291
Benzoin, compound tincture in sloughing ulcers, ... 349, 378
Bladder, irritable, ... 108
treatment, ... 110

PAGE
Bubo, true syphilitic, sloughing, ... 264
Buchu in blennorrhæa, ... 46
Buckingham, Dr., anomalous cases, ... 20
Busk, Mr., on composition of gummy tubercles, ... 409
Calomel to mucous tubercles, ... 353
Camphor in painful erections, ... 57
Castration in spermatorrhœa, ... 138
Cazenave on contagiousness of secondary syphilis, ... 292
Cerebral syphilitic affections, ... 424
Chancre, indurated, ... 189, 216
microscopical examination of, ... 189
Hunterian, rarely met with, ... 189
never forms on the glans penis, ... 192
rarely on os uteri, ... 191
period of incubation, ... 192
abortive treatment, ... 193
views of Dupuytren, ... 194
Vidal, ... 194
local applications, ... 196, 229
constitutional treatment, ... 199
average time for curing indurated, ... 219
masked or concealed, ... 232
rarely met with, ... 233
produces great mutilations, ... 233
treatment, ... 234
on os uteri, and vagina, ... 233
treatment, ... 235
inflammatory, ... 237
how induced, ... 237
treatment, ... 237
Mr. Key, sarsaparilla and limewater, . . 238
opium, ... 238
phagedænic, ... 240
progresses rapidly, ... 241
seldom produces constitutional syphilis, . . 242
treatment, ... 242
Chancres, in women, ... 251
Chordee, ... 56, 58
treatment, ... 56
lupulin, ... 57
camphor, ... 57
Choroiditis, syphilitic, ... 399
Circumcision, ... 78
citrate of iron, and quinine, ... 218
Cod liver oil, as a tonic, ... 334
chocolate, and jelly, ... 334

PAGE
Compression of the testis, ... 91
Condylomata, ... 350, 364
Contagion of secondary syphilis, ... 286, 292
Coote, Holmes, on secondary without primary symptoms, . . . 292
Cubebs in gonorrhœa, ... 42
eruptions produced by, ... 23, 306
Cullerier, of Paris, on bichloride of mercury, ... 222
Davis, Dr. C. A., treatment of blennorrhagia, ... 52
Deafness, syphilitic, case of, ... 375
Diday, on contagiousness of secondary syphilis, ... 292
Discussion at Boston Society for Medical Improvement, . . . 292
Dura Mater, syphilitic tumors on, ... 424
iodide of potassium for, ... 425
Eczema præputialis, ... 103
diagnosis of, ... 104
treatment of, ... 105
Egan, Dr., on the use of mercury, ... 199, 211
Emunctory organs, ... 206
Epididymitis, ... 84
Erections, involuntary and painful, ... 56
Ergot in spermatorrhœa, ... 135
Erichsen, Professor, on simple and mercurial treatment, . . . 299
Eruptions, papular, ... 310
diagnosis, ... 311
treatment, ... 314
squamous, ... 318, 325
treatment, ... 333
from iodide of potassium, ... 337
tubercular, ... 342
treatment, ... 345
pustular, ... 355
Erythema syphiliticum, ... 306, 441
Escharotics to chancres, ... 196
Excoriations, ... 113
Exostosis syphilitic, ... 431
Ferruginous remedies and iodide of potassium in the constitutional treatment of nodes, ... 429
Fissures, or rhagades, on the tongue, ... 372
Fomentations in blennorrhagia, ... 32, 178
Francis, Dr. J. W., on bichloride of mercury, ... 221
French Council of Health, statistics of different methods of treating syphilis, ... 208
Frike, of Hamburgh, a non-mercurialist, ... 207
Fumigations, ... 316, 400
Gamberlini, Dr., of Bologna, on iodide of sodium, ... 341
Gargles, ... 381
Gleet, ... 28, 60

PAGE
Gleet and matrimony, ... 29
microscopical appearances, ... 62
treatment, ... 63
blisters, ... 64
injections, ... 65
constitutional treatment, ... 69
Gonorrhœa, causes, ... 14
diagnosis, ... 24
period of latency, ... 26
treatment of, in the male, ... 31
in the female, ... 168
diagnosis, ... 170
situation, varieties, and symptoms, ... 174
treatment, ... 175
Grassi, M., analyses of syphilitic blood, ... 202
Gummy tubercles, ... 403
diagnosis, ... 404
cases, ... 404
give rise to the "horse-shoe," or serpiginous ulcer, 405
have been found in muscles, ... 407
in the heart, ... 408
in tendons, ... 408
in the epididymis, ... 409
testicle, liver, lungs, brain, etc., ... 409
their composition, ... 409
Hancock on buchu in blennorrhagia, ... 46
Hebra and Sigmund, of Vienna, on mercurial inunction, ... 214
on communicability of secondary syphilis, ... 286
Hemorrhage, urethral, ... 58
Hepatic syphilitic affections, ... 290
Heredito-syphilitic iritis, ... 398
Herpes præputialis, ... 96
symptoms, ... 96
treatment, ... 101
Hosack, Dr. David, on bichloride of mercury, ... 221
Hyoscyamus and camphor in spermatorrhœa, ... 137
Incubation of the venereal poison, ... 192
Infantile syphilis, ... 432
Infrequency of indurated chancre, ... 189
Injections of nitrate of silver, ... 32, 178
objections to those of high power, ... 33
fatal effects from, ... 35
in blennorrhagia, ... 179
of balsam copaibæ, ... 41
Internal organs syphilitic, ... 442
Intoxication, iodic, ... 338, 363
Iodine, tincture of, as an injection, ... 179

PAGE
Iritis, syphilitic, ... 391
diagnosis, ... 393
treatment, ... 395
Iron, arseniate, ... 99
citrate of and quinine, ... 218
iodide of, ... 346
potassio-tartrate, ... 218, 229, 347, 354
in phagedænic ulcers, ... 243
Irritability of the bladder, ... 108
treatment, ... 110
Jackson, Dr. James, on lupulin, ... 135
Johnson, Dr. James, on sarsaparilla, ... 226
Key, Mr., iodide of potassium in sloughing buboes, ... 264
Larynx. syphilitic, ... 384
Lawrence, Mr., of London, on syphilization, ... 205
Lee, Mr., of London, trephining in certain cases of syphilitic ostitis, . 428
Leucorrhœa as a cause of gonorrhœa, ... 15, 17, 170
Lichen, varieties, ... 311
diagnosis, ... 311
passes into tubercle, ... 312
Locher, of Vienna, use of bichloride of mercury, ... 223
London Lancet, on 223
Lotion of chlorate of potash, ... 243, 247
Lungs, syphilitic, ... 442
Lupulin in chordee and erections, ... 57
in spermatorrhœa, ... 134
Macula syphilitica, ... 307
Marsden, Dr., treatment of secondary eruptions at the Royal Free Hos- 442
pital, London, ... 319
Massachusetts General Hospital, cases of venereal disease arising from
infantile syphilis, ... 288
Menstrual fluid exciting gonorrhœa, ... 14, 170
Mercurial fumigations, ... 316, 400
Mercurial inunction for curing venereal symptoms, ... 214
Mercurial inunction in orchitis, ... 87
Mercury, ... 206
should be taken on a full stomach, ... 213
not useful for sloughing or phagedænic ulcers, ... 210
bichloride, ... 221
one hundred years ago, ... 223
a favorite of Dupuytren, ... 224
McGrigor, Sir James, reports cases in British army cured without
mercury, ... 207
Methods of treating syphilis, ... 206
Miliary tubercles, ... 426
Milton, Mr., blisters in gleet, ... 64
Mouth and throat, secondary lesions, ... 370

PAGE

Mucous tubercles, ... 350
treatment, ... 353
Myositis, ... 407
Nitrate of silver, injections in blennorrhagia, ... 33, 53
as a caustic to chancres, ... 196
Nitric acid, to sloughing ulcers, ... 245, 376
Nodes, ... 422
intra-cranial, ... 425
diagnosis, ... 426
constitutional treatment, ... 429
local treatment, ... 430
Nose, syphilitic diseases of, ... 386
treatment, ... 388
Nurses, inoculability by syphilitic children, and *vice versa*, . 286, 291
Ointment, mercurial, for curing venereal symptoms, ... 214
Ophthalmia, gonorrhœal, ... 140
etiology of, ... 142
from metastasis, ... 142
diagnosis, ... 146
treatment, ... 147
neonatorum, ... 152
treatment, ... 153
Opium, in irritability of the system, ... 238
Orchitis, ... 82
statistics by Sigmund, ... 84
symptoms, ... 84
treatment, ... 85
mercurial ointment, ... 87
iodide of potassium ointment, ... 87
extract of belladonna, ... 88
tincture of hyoscyamus, ... 89
syphilitic, ... 416
belongs to no particular stage of syphilis, . . 416
diagnosis, ... 418
pathological appearances, ... 418
treatment, ... 418
Ormerod on iodide of potassium, and mercury, ... 340
Os tineæ, chancres on, ... 191
infrequency of, ... 191, 236
Osteocopes, syphilitic, ... 421
diagnosis and treatment, ... 426
Painful erections, ... 56
Pains, tertiary, iodide of potassium in, ... 429
urethral, ... 118
treatment, ... 119
Papillomata, ... 166
treatment, ... 166

PAGE
Papular eruptions, ... 310
diagnosis, ... 311
treatment, ... 314
Paralysis from intra-cranial syphilitic nodes, ... 425
Paraphymosis, ... 79
treatment, ... 79
Peaslee, Professor E. R., on nitrate of silver as a caustic, . . . 196
Penis, bony hardness of, ... 56
Period of latency between primary and secondary symptoms, . . . 267
longest recorded, ... 270
shortest " 270
Periosteum and bones, syphilitic, ... 421
Pharynx, sloughing ulcers, ... 374
treatment, ... 376
Phymosis, ... 76
treatment, ... 76
Porte caustique, danger of using, ... 136
Potassa fusa as an escharotic, ... 196
Potassium, bromide of, in spermatorrhœa, ... 137
chlorate of, as an injection, ... 179
in stomatitis, ... 230
strong solution of, as a dressing for sloughing ulcers, ... 243, 247
no standard dose, ... 339
singular effects of, ... 337
in tertiary syphilis, ... 405, 410
Potassio tartrate of iron, ... 218
in phagedæna, ... 243
Pregnancy and syphilis, ... 451
Prepuce, its uses, ... 72
Prostitutes, cause of their sterility, ... 181
Puncturing the tunica vaginalis testis, and epididymis, . . . 90
Purpura co-existing with rupia, ... 358
Pustule plate, ... 351
Pustules, syphilitic, ... 355
treatment, ... 361
Rectum, syphilitic stricture of, ... 353
Reeve, on intra-cranial affections, ... 425
Reid, " " " 424
Relapses in gonorrhœa, ... 47
Rest, its importance in gonorrhœa, ... 32, 39, 186
Rheumatism, gonorrhœal, ... 156
diagnosis, ... 158
treatment, ... 158
Rhus glabrum in stomatitis, ... 230
Ricord, on experiments without mercury, ... 208
Rokitansky, microscopic examination of syphilitic skull, . . . 423

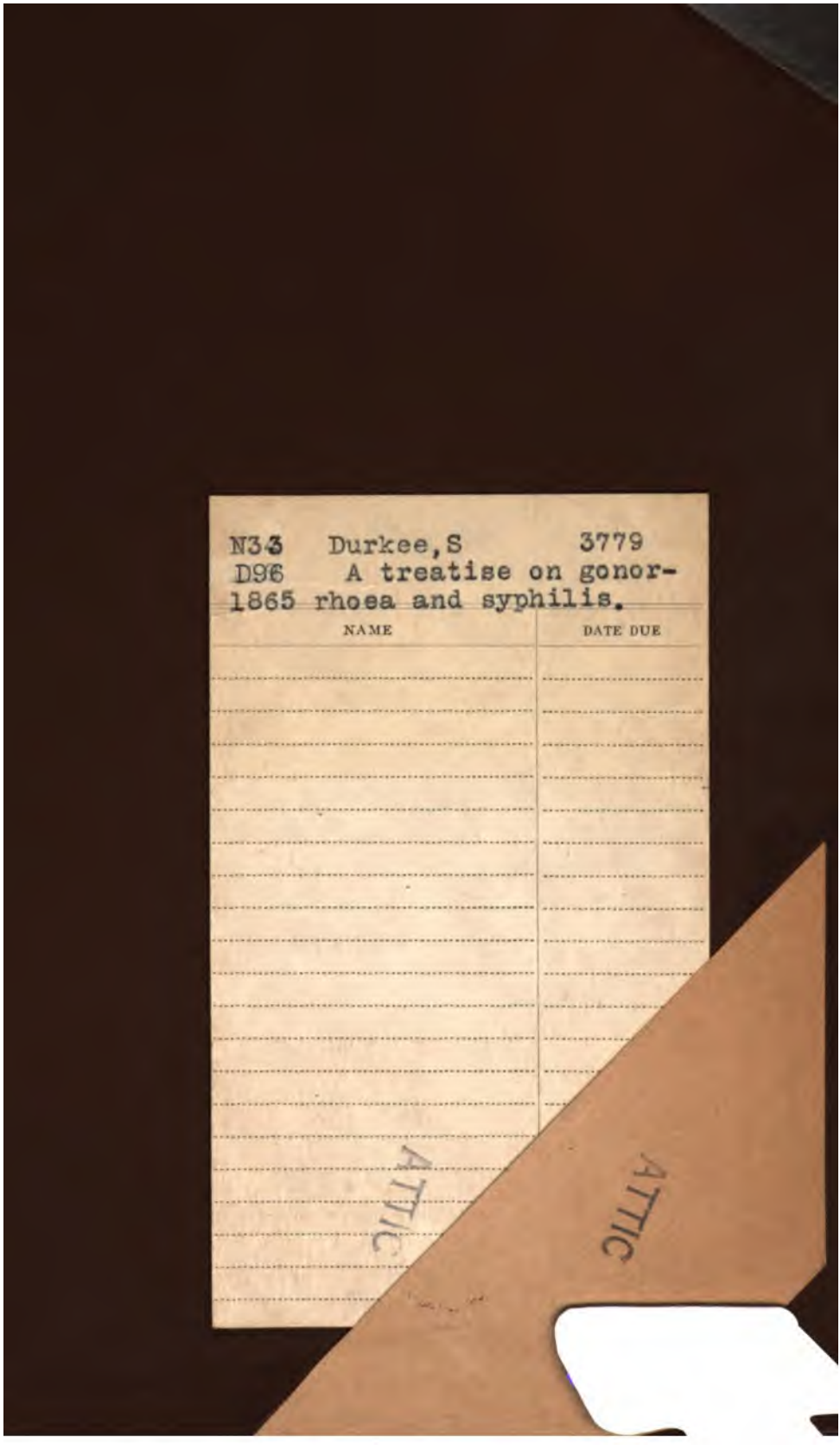
PAGE
Roseola syphilitica, ... 306
sometimes assumes the annulate form, . . 307
diagnosis, ... 308
treatment, ... 309
Royal Free Hospital, London, treatment of secondary eruptions, . . 319
Rupia syphilitica, ... 356
two varieties, ... 358
treatment, ... 361
iodide of potassium, ... 363
Salivation never necessary, ... 212, 222
or stomatitis, ... 229
chlorate of potash in, ... 230
muriatic acid in, ... 230
rhus glabrum in, ... 230
Saponaria officinalis, ... 226
Sarcocele, ... 416
treatment, ... 418
Savin and burnt alum as an escharotic, ... 165
Scrofula and syphilis, ... 401
Secale cornutum in spermatorrhœa, ... 135
Secondary syphilis, ... 266
symptoms without primary, ... 281
Seminal fluid may communicate syphilis, ... 287
Sigmund on mercurial inunction, ... 214
on communicability of secondary syphilis, ... 286
Simpson, Professor, on syphilitic peritonitis, ... 446
Sinuses, injections of tincture of iodine for, ... 265
Skey, Mr., his method of treating gonorrhœa and gleet, . . . 55
Skull, thickening of, ... 423
Smith, Dr. J. L., on syphilis from a nursling to a nurse, . . . 291
Sodium, iodide of, ... 340
Speculum uteri, ... 168
Spermatorrhœa, ... 121
causes, ... 123
pathological appearances, ... 128
treatment, ... 128
Squamous eruptions, ... 325
Sterility, causes of in prostitutes, ... 181
Syphilis, ... 187
secondary, ... 266
time between exposure and symptoms, ... 192
blood in, ... 202
hereditary, ... 432
infantile, ... 432
prognosis, ... 436
symptoms, ... 437
infantile diagnosis, ... 446

PAGE

Syphilis, infantile, treatment, ... 448
communicated by vaccination, ... 287
Syphilodermata, ... 273
Wilson's nomenclature, ... 275
Willan's system, ... 276
diagnosis, ... 276
color of skin, ... 276
insensibility of skin. 279
cicatrices, ... 280
Syphilization, artificial, ... 206
diseases from, ... 205
Swan Alley sore, ... 252
not contagious, ... 253
treatment, ... 252
Tendons, nodes or gummata in. 408
Tertiary pains. 427
syphilis, ... 401
in young children, ... 433
Testelin on syphilitic hepatic diseases, ... 445
Testicle, swelled, ... 82
compression, ... 91
best time for, ... 92
Ricord's opinion, ... 92
Thymus gland, syphilitic, ... 446
Tincture of benzoin comp. for sloughing ulcers, ... 349, 378
iodine as an injection in vaginal blennorrhagia, . . 179
Todd, syphilitic diseases of dura mater, ... 424
Tongue, syphilitic diseases of, ... 370
treatment, ... 375
swelled in stomatitis, ... 231
Transmission of infantile syphilis, ... 290
Trousseau on, ... 390
Travers on sarsaparilla, ... 226
Trephining in certain cases of chronic ostitis, ... 428
Tubercula gummata, ... 403
diagnosis, ... 404
cases, ... 404
produce horse-shoe or serpiginous ulcers, . . 405
treatment, ... 409
Tubercles, lupoid, ... 344
Tubercule muqueux, ... 351
Tumors, mucous, ... 351
treatment, ... 354
intra-cranial, syphilitic, ... 424
Tunica vaginalis, puncturing, ... 90
Turenne, M., on artificial syphilization, ... 203
Tyrrell, Mr., scarifications in gonorrhœal ophthalmia, ... 148

PAGE

Ulcerations about the toes and the nails, ... 365
on the tongue, ... 370
sloughing, in the mouth, ... 374
Ulcers, serpiginous, ... 341
phagedænic, ... 244, 343
strong acid solution of chlorate of potash, as a constant dressing in, ... 247
Urethral blennorrhagia in the female, ... 184
symptoms and treatment, ... 185
hemorrhage, ... 58
pains, ... 118
Urethral pains, treatment, ... 119
Uterus, blennorrhagia of, ... 181
treatment, ... 182
injections, ... 183
Vaccination the medium of communicating syphilis, ... 287
Vaginitis, chronic, ... 180
in young children, ... 172
Vegetations, ... 162
anatomical structure, ... 163
Vidal's opinion of their venereal origin, ... 164
Acton's, " " " " 164
treatment, ... 165
Velpeau on transmissibility of secondary syphilis, ... 286
Venereal disease in cats, horses, monkeys, etc., ... 203
Veratrum viride in gonorrhœal rheumatism, ... 160
Vidal, on contagiousness of secondary syphilis, ... 292
Victor de Meric, interval between primary and consecutive symptoms, 267
Vienna paste as an escharotic, ... 196
Virility unimpaired in orchitis, ... 90
Waller, produced syphilis with the blood, ... 287
Warts, or morbid excrescences, ... 162
Weltz, Dr. Robert, on syphilization, ... 203
Wilks, Mr., on syphilitic liver, ... 444
Williams, Dr. H. W., on gonorrhœal ophthalmia, ... 144
Willis, on iodide of potassium, ... 340
Wilson, Erasmus, on mercury, ... 211
Women, chancres in, ... 251
pregnant, and syphilis, ... 451
Zinc, chloride of, as an escharotic, ... 165, 183


N33 Durkee,S 3779
D96 A treatise on gonor-
1865 rhoea and syphilis.
NAME
DATE DUE
ATTIC
ATTIC